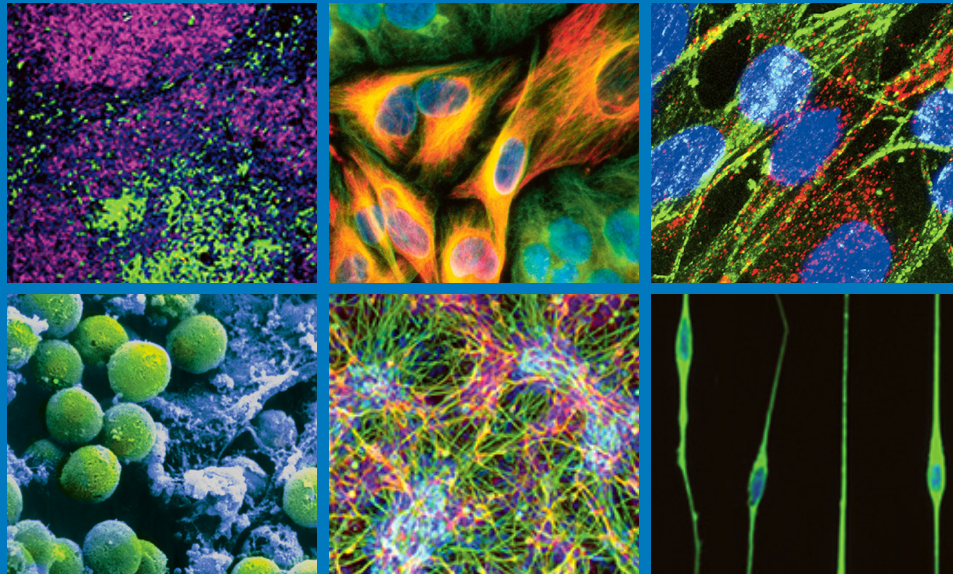


Tangible Materials Licensing Catalogue



Edition 4



Memorial Sloan Kettering
Cancer Center



What's New

Memorial Sloan Kettering Cancer Center (MSK) possesses an extensive collection of tangible research materials, which are available for licensing for research or commercial purposes. These materials are managed by MSK's Office of Technology Development.

With this 4th Edition of its *Tangible Materials Licensing Catalogue*, MSK offers a comprehensive and expanded selection of about 20 categories of cell lines derived from cancer patients, including melanoma, renal cancer, neuroblastoma, and lung cancer. Many of these materials have not been previously publicized for licensing purposes.

MSK's *Tangible Materials Licensing Catalogue* also includes a range of antibodies, mouse models, and PDX models. Together with the rest of the portfolio described in this catalogue, they offer promising potential for commercial entities and academic-research institutions alike.

This 4th Edition of MSK's *Tangible Materials Licensing Catalogue* is new and different in another important respect. We have expanded express licensing options to now cover most of the cell lines included in our catalogue. As you'll see in the pages that follow, express licensing information is linked directly to our marketing sheets; these licenses can be filled out and submitted to MSK online.

MSK's non-exclusive, non-negotiable express licenses save time and effort for our tangible materials licensing partners. All transactions up to \$10,000 will be paid for by credit card; MSK will invoice customers for larger transactions. All tangible materials listed in this catalogue are subject to change in availability, pricing, and license contracts.

This is all part of our effort to make the process of tangible material licensing as quick and user-friendly as possible. We will periodically publish new and expanded editions of MSK's *Tangible Materials Licensing Catalogue*. Meanwhile, to view a list of other MSK technologies available for licensing, including therapeutics, diagnostics, vaccines, medical devices, and digital health innovation, please see [here](#).

Table of Contents

Cell Line Licensing at MSK

ANTIBODIES

Anti-CD45.1 Mouse Monoclonal Antibody (Clone A-20)	9
Anti-CD45.2 Mouse Monoclonal Antibody (Clone 104-2)	9
Anti-NK1.1 Mouse Monoclonal Antibody (Clone PK136)	10
Anti-TRP1 Mouse Monoclonal Antibody (Clone TA99)	10
Anti-Mre-11 Hamster Monoclonal Antibody (Clone 15B8.1E7.6)	11

CELL LINES

Brain & Nervous System

SH-SY5Y. Human Neuroblastoma Cell Line (ATCC Catalogue No. CRL-2266)	13
SK-MG-01. Human Brain Astrocytoma Cell Line	13
SK-MG-02. Human Brain Astrocytoma Cell Line	14
SK-MG-03. Human Brain Astrocytoma Cell Line	14
SK-MG-04. Human Brain Astrocytoma Cell Line	15
SK-MG-05. Human Brain Astrocytoma Cell Line	15
SK-MG-06. Human Brain Astrocytoma Cell Line	16
SK-MG-07. Human Brain Astrocytoma Cell Line	16
SK-MG-08. Human Brain Astrocytoma Cell Line	17
SK-MG-09. Human Brain Astrocytoma Cell Line	17
SK-MG-10. Human Brain Astrocytoma Cell Line	18
SK-N-BE(2). Human Neuroblastoma Cell Line (ATCC Catalogue No. CRL-2271)	18
SK-N-BE(2)-C. Human Neuroblastoma Cell Line (ATCC Catalogue No. CRL-2268)	19
SK-N-MC. Human Neuroblastoma Cell Line (ATCC Catalogue No. HTB-10)	19
SK-N-SH. Human Neuroblastoma Cell Line (ATCC Catalogue No. HTB-11)	20
TS543. Human Glioblastoma Cell Line	20
TS600. Human Glioblastoma Cell Line	21
TS603. Human Glioblastoma Cell Line	21
TS676. Human Glioblastoma Cell Line	22

Breast Cancer

CAMA-1. Human Breast Cancer Cell Line (ATCC Catalogue No. HTB-21)	24
SK-BR-3. Human Breast Cancer Cell Line (ATCC Catalogue No. HTB-30)	24
SK-BR-5. Human Breast Cancer Cell Line (aka SK-BR-05)	25
SK-BR-7. Human Breast Cancer Cell Line (aka SK-BR-07)	25
SK-1041. Organ-Tropic Metastatic Breast Cancer Cell Line Portfolio	26
MDA-231-AdM-1834. Human Breast Adenocarcinoma Cell Line	27
MDA-231-BoM-1833. Human Breast Adenocarcinoma Cell Line	27
MDA-231-BoM-2287. Human Breast Adenocarcinoma Cell Line	28
MDA-231-BrM2-831. Human Breast Adenocarcinoma Cell Line	28
MDA-231-LM2-4175. Human Breast Adenocarcinoma Cell Line	29
MDA-MB-231 TGL. Human Breast Adenocarcinoma Cell Line	29

Cervical Cancer

HT-3. Human Cervical Cancer Cell Line (ATCC Catalogue No. HTB-32)	31
--	----

Colorectal Cancer

HT-29. Human Colorectal Adenocarcinoma Cell Line (ATCC Catalogue No. HTB-38)	33
SK-CO-1. Human Colorectal Adenocarcinoma Cell Line (ATCC Catalogue No. HTB-39)	33
SK-CO-10. Human Colon Carcinoma Cell Line	34
SK-CO-15. Human Colon Carcinoma Cell Line	34

Esophageal Cancer

SK-GT-4. Human Esophageal Adenocarcinoma Cell Line, Primary (aka SK-GT-04)	36
SK-NEP-1. Human Esophageal Adenocarcinoma Cell Line, Metastatic (aka SK-NEP-01)	36

Head & Neck Cancer

MSK-921. Human Head & Neck Squamous Cell Line	38
MSK-Leuk1. Human Oral Leukoplakia Cell Line	38

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



Liver Cancer

SK-HEP-1. Human Hepatic Adenocarcinoma Cell Line (ATCC Catalogue No. HTB-52)40

Lung Cancer

Calu-1. Human Lung Squamous Cell Carcinoma Cell Line (aka Calu-01) ... 42
Calu-3. Human Lung Adenocarcinoma Cell Line, Metastatic (aka Calu-03). . . 42
Calu-5. Human Lung Adenocarcinoma Cell Line (aka Calu-05) 43
Calu-6. Human Lung Anaplastic Carcinoma Cell Line (aka Calu-06) 43
SK-LC-01. Human Lung Adenocarcinoma Cell Line 44
SK-LC-02. Human Lung Adenocarcinoma Cell Line. 44
SK-LC-04. Human Lung Adenocarcinoma Cell Line 45
SK-LC-05. Human Lung Large Cell Carcinoma Cell Line 45
SK-LC-06. Human Lung Large Cell Anaplastic Carcinoma Cell Line. 46
SK-LC-07. Human Lung Adenocarcinoma Cell Line. 46
SK-LC-08. Human Lung Squamous Cell Line 47
SK-LC-09. Human Lung Adenocarcinoma Cell Line. 47
SK-LC-10. Human Lung Adenocarcinoma Cell Line 48
SK-LC-11. Human Lung Adenocarcinoma Cell Line 48
SK-LC-12. Human Lung Adenocarcinoma Cell Line 49
SK-LC-13. Human Lung Small Cell Carcinoma Cell Line. 49
SK-LC-14. Human Lung Squamous Cell Carcinoma Cell Line, Primary. . . . 50
SK-LC-15. Human Lung Adenocarcinoma Cell Line, Primary. 50
SK-LC-16. Human Lung Adenocarcinoma Cell Line, Primary. 51
SK-LC-17. Human Lung Anaplastic Carcinoma Cell Line, Primary. 51
SK-LC-19. Human Lung Adenocarcinoma Cell Line 52
SK-LC-21. Human Lung Adenocarcinoma Cell Line 52
SK-LU-1. Human Lung Adenocarcinoma Cell Line, Primary (aka SK-LU-01, ATCC Catalogue No. HTB-57) 53
SK-MES-1. Human Lung Cancer Cell Line (ATCC Catalogue No. HTB-58) . . . 53

Lymphoma

SK-LY-16. Human Lymphoma Cell Line. 55
SK-LY-18. Human B-Cell Non-Hodgkin Lymphoma Cell Line 55

Melanoma

HT-144. Human Melanoma Cell Line (ATCC Catalogue No. HTB-63) 57
Malme-3M. Human Melanoma Cell Line (ATCC Catalogue No. HTB-64). . . 57
SK-MEL-1. Human Melanoma Cell Line (ATCC Catalogue No. HTB-67) . . . 58
SK-MEL-2. Human Melanoma Cell Line (ATCC Catalogue No. HTB-68) . . . 58
SK-MEL-3. Human Melanoma Cell Line (ATCC Catalogue No. HTB-69) . . . 59
SK-MEL-5. Human Melanoma Cell Line (ATCC Catalogue No. HTB-70) . . . 59
SK-MEL-24. Human Melanoma Cell Line (ATCC Catalogue No. HTB-71) . . . 60
SK-MEL-26. Human Melanoma Cell Line 60
SK-MEL-28. Human Melanoma Cell Line (ATCC Catalogue No. HTB-72) . . . 61
SK-MEL-29. Human Melanoma Cell Line 61
SK-MEL-30. Human Melanoma Cell Line 62
SK-MEL-31. Human Melanoma Cell Line (ATCC Catalogue No. HTB-73) . . . 62

Multiple Myeloma

SK-MM-1. Human Multiple Myeloma Cell Line (aka SK-MM-01). 64
SK-MM-2. Human Multiple Myeloma Cell Line (aka SK-MM-02). 64

Ovarian Cancer

Caov-3. Human Ovarian Cancer Cell Line (ATCC Catalogue No. HTB-75). . 66
Caov-4. Human Ovarian Cancer Cell Line (ATCC Catalogue No. HTB-76) . 66
SK-OV-1. Human Ovarian Adenocarcinoma Cell Line (aka SK-OV-01) 67
SK-OV-3. Human Ovarian Cancer Cell Line (ATCC Catalogue No. HTB-77) . . 67
SK-OV-8. Human Ovarian Adenocarcinoma Cell Line (aka SK-OV-08) . . . 68

Pancreatic Cancer

Capan-1. Human Pancreatic Adenocarcinoma Cell Line (ATCC Catalogue No. HTB-79) 70
Capan-2. Human Pancreatic Adenocarcinoma Cell Line (ATCC Catalogue No. HTB-80) 70

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK’s tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



Renal Cancer

Caki-1. Human Renal Cancer Cell Line (ATCC Catalogue No. HTB-46)	72
Caki-2. Human Renal Cancer Cell Line (ATCC Catalogue No. HTB-47)	72
SK-RC-1. Human Renal Carcinoma Cell Line, Primary (aka SK-RC-01)	73
SK-RC-2. Human Renal Adenocarcinoma Cell Line, Primary (aka SK-RC-02)	74
SK-RC-4. Human Renal Cancer Cell Line, Primary (aka SK-RC-04)	75
XSK-RC-6. Human Renal Adenocarcinoma Cell Line, Primary (aka SK-RC-06)	76
SK-RC-7. Human Renal Clear Cell Carcinoma Cell Line, Primary (aka SK-RC-07)	77
SK-RC-8. Human Renal Clear Cell Carcinoma Cell Line, Primary (aka SK-RC-08)	78
SK-RC-9. Human Renal Carcinoma Cell Line, Metastatic (aka SK-RC-09)	79
SK-RC-10. Human Renal Cancer Cell Line, Primary	80
SK-RC-11. Human Renal Cancer Cell Line, Primary	81
SK-RC-12. Human Renal Clear Cell, Cortical Carcinoma Cell Line, Primary	82
SK-RC-13. Human Renal Cancer Cell Line, Metastatic	82
SK-RC-14. Human Renal Cancer Cell Line, Primary	83
SK-RC-15. Human Renal Clear Cell, Cortical Carcinoma Cell Line, Primary	83
SK-RC-16. Human Renal Cancer Cell Line, Primary	84
SK-RC-17. Human Renal Cancer Cell Line, Metastatic	84
SK-RC-18. Human Renal Clear Cell Carcinoma Cell Line, Metastatic	85
SK-RC-19. Human Renal Cancer Cell Line, Primary	85
SK-RC-20. Human Renal Cancer Cell Line, Primary	86
SK-RC-21. Human Renal Cancer Cell Line, Metastatic	86
SK-RC-22. Human Renal Cancer Cell Line, Primary	87
SK-RC-24. Human Renal Cancer Cell Line, Primary	87
SK-RC-25. Human Renal Cancer Cell Line, Primary	88
SK-RC-26. Human Renal Cancer Cell Line, Primary	88
SK-RC-26a. Human Renal Cancer Cell Line, Metastatic	89
SK-RC-26b. Human Renal Cancer Cell Line, Metastatic	89

SK-RC-28. Human Renal Clear Cell Adenocarcinoma Cell Line, Primary	90
SK-RC-30. Human Renal Cancer Cell Line, Primary	91
SK-RC-31. Human Renal Cancer Cell Line, Metastatic	92
SK-RC-34. Human Renal Cancer Cell Line, Primary	93
SK-RC-36. Human Renal Cancer Cell Line, Metastatic	93
SK-RC-37. Human Renal Cancer Cell Line, Primary	94
SK-RC-38. Human Renal Clear Cell Carcinoma Cell Line, Metastatic	94
SK-RC-45. Human Renal Cancer Cell Line, Metastatic	95
SK-RC-48. Human Renal Cancer Cell Line, Primary	96
SK-RC-52. Human Renal Cancer Cell Line, Metastatic	96
SK-RC-54. Human Renal Adenocarcinoma Cell Line, Metastatic	97
SK-RC-56. Human Renal Cancer Cell Line, Primary	97
SK-RC-61. Human Renal Cancer Cell Line, Primary	98
SK-RC-(M). Metastatic Human Renal Cell Carcinoma (RCC) Cell Line Portfolio	99
SK-RC-(P). Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio	100

Sarcoma

Saos-2. Human Osteosarcoma Cell Line (ATCC Catalogue No. HTB-85)	102
---	-----

Sarcoma, Ewing

SK-ES-1. Human Ewing Sarcoma Cell Line (aka SK-ES-01)	104
--	-----

Teratomas

HTB-106. Human Carcinoma Cell Line Derived from a Lung Metastatic Site (ATCC Catalogue No. HTB-106)	106
---	-----

Uterine Cancer

SK-UT-1. Human Uterine Leiomyosarcoma Cell Line (aka SK-UT-01)	108
SK-UT-1B. Human Uterine Leiomyosarcoma Cell Line (ATCC Catalogue No. HTB-115)	108
SK-UT-02. Human Endometrial Carcinoma Cell Line	109

Vulva

SK-LMS-01. Human Vulva Cancer – Vulvar Leiomyosarcoma Cell Line (ATCC Catalogue No. HTB-88)	111
---	-----



MOUSE MODELS

SK1040. The Ef-Luc Mouse.....	113
SK2011-042. Conditional ASXL1 Knock-out Mouse Model	114
SK2011-043. Conditional BAP1 Knock-out Mouse Model	114
SK2011-047. MAD2 Overexpressing Mice.....	115

PDX MODELS

MSK-LX29 (Adenocarcinoma)	117
MSK-LX40 (Small Cell Lung Cancer).....	117
MSK-LX40-R (Small Cell Lung Cancer)	117
MSK-LX55 (Adenocarcinoma)	117
MSK-LX95 (Small Cell Lung Cancer)	118
MSK-LX95-R (Small Cell Lung Cancer).....	118
MSK-LX285 (Adenocarcinoma)	118



Cell Line Licensing at MSK

When licensing materials from the MSK Cell Line portfolio, note that these may be provided to our licensing partners by either ATCC or an MSK core facility, depending upon the particular cell line. Pricing, availability, and license contracts are subject to change.

Most of MSK's cell lines may be licensed through one of our non-negotiable, non-exclusive express licenses.

- **If ATCC** will provide the cell line: Commercial or other for-profit entities should start the process by filling out the ATCC Express License, and then providing it in fully executed form to ATCC. See [here](#) for links to the online fillable webform and PDF version of the **ATCC Express License**.

If MSK's Antibody & Bioresource Core Facility will provide the cell line: Commercial or other for-profit entities should start by filling out the Core Express License. See [here](#) for links to the online fillable webform and PDF version of the **Core Express License**.

- **With all other cell lines (as well as other tangible materials):** Contact the Tangible Materials Licensing team at TRMOTDRTM@mskcc.org.

For detailed guidance on how to fill out MSK's express licenses for cell lines, see [here](#).

With questions about our extensive Tangible Materials portfolio, or to license a product that is not covered by an MSK Express License, please contact the Tangible Materials Licensing team at TRMOTDRTM@mskcc.org.

MSK Tangible Materials Portfolio



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



Antibodies



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



Anti-CD45.1 Mouse Monoclonal Antibody (Clone A-20)

Antigen: Mouse CD45.1 (Ly5.1)

Clone Name: A-20

Isotype: Mouse IgG2a (Kappa Light Chain)

Application(s)*: Flow Cytometry, Immunofluorescence Microscopy, Immunoprecipitation

Reactivity*: Mouse

*As reported in the literature and other commercial supplier websites

Description

Clone A-20 reacts with CD45 (Leukocyte Common Antigen) on leukocytes of mouse strains that express the CD45.1 alloantigen (e.g., RIII, SJL/J, STS/A, DA). It has been reported not to react with leukocytes from mouse strains expressing the CD45.2 alloantigen.

Source

This antibody was derived in 1981 by injection of thymocytes and splenocytes from SJL mice into A.SW mice. Splenocytes from these A.SW mice were fused with NS-1 cells to generate hybridomas.

Inventors

- Edward Boyse, MD, formerly of Memorial Sloan Kettering
- Fung-Win Shen, PhD

Key References

- Shen FW (1981) Monoclonal antibodies to mouse lymphocyte differentiation alloantigens. *Monoclonal Antibodies and T-Cell Hybridomas: Perspectives and Technical Advances*. Hämmerling GJ, Hämmerling U and Kearney JF, editors. Elsevier/North-Holland Biomedical Press, Amsterdam. 25-31 (ISBN: 9780444803511)
- Yakura H et al. (1983) On the function of Ly-5 in the regulation of antigen-driven B cell differentiation. Comparison and contrast with Lyb-2. *Journal of Experimental Medicine* 157: 1077-1088. PMID: [6220106](#)

MSK Tracking Code: SK2003-077

Anti-CD45.2 Mouse Monoclonal Antibody (Clone 104-2)

Antigen: Mouse CD45.2 (Ly5.2)

Clone Name: 104-2

Isotype: Mouse IgG2a (Kappa Light Chain)

Application(s)*: Flow Cytometry, Immunofluorescence Microscopy, Immunoprecipitation

Reactivity*: Mouse

*As reported in the literature and other commercial supplier websites

Description

Clone 104-2 reacts with CD45 (Leukocyte Common Antigen) on leukocytes of mouse strains that express the CD45.2 alloantigen, including A, AKR, BALB/c, CBA/Ca, CBA/J, C3H/He, C57BL, C57BR, C57L, C58, DBA/1, DBA/2, NZB, SWR, and 129. It has been reported not to react with leukocytes from mouse strains expressing the CD45.1 alloantigen.

Source

This antibody was derived in 1981 by injection of thymocytes and splenocytes from B10.S mice into SJL mice. Splenocytes from these SJL mice were fused with NS-1 cells to generate hybridomas.

Inventors

- Edward Boyse, MD, formerly of MSK
- Fung-Win Shen, PhD

Key References

- Shen FW (1981) Monoclonal antibodies to mouse lymphocyte differentiation alloantigens. *Monoclonal Antibodies and T-Cell Hybridomas: Perspectives and Technical Advances*. Hämmerling GJ, Hämmerling U and Kearney JF, editors. Elsevier/North-Holland Biomedical Press, Amsterdam. 25-31 (ISBN: 9780444803511)
- Yakura H et al. (1983) On the function of Ly-5 in the regulation of antigen-driven B cell differentiation. Comparison and contrast with Lyb-2. *Journal of Experimental Medicine* 157: 1077-88. PMID: [6220106](#)

MSK Tracking Code: SK2003-077

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



Anti-NK1.1 Mouse Monoclonal Antibody (Clone PK136)

Antigen: Mouse NK1.1 (CD161, NKR-P1C, Ly-55)

Clone Name: PK136

Isotype: Mouse IgG2a (Kappa Light Chain)

Application(s)*: Flow Cytometry, Immunoprecipitation, Immunohistochemistry, Immunofluorescence

Reactivity*: Mouse

*As reported in the literature and other commercial supplier websites

Description

Clone PK136 recognizes mouse NK1.1, a cell surface antigen expressed by natural killer cells and a subset of T cells in the NK1.1 mouse strains including CE, C57BL/6, FVB/N, and NZB. NK1.1 is not expressed by NK cells from the following mouse strains: 129, A, AKR, BALB/c, C3H, CBA, and SJL.

Source

This antibody was derived in 1984 by injection of splenocytes (enriched for NK-1-positive cells) and bone marrow cells from CE mice into (C3H x BALB/c) F1 mice. Splenocytes from these mice were then fused with Sp2/O-Ag14 cells to generate hybridomas.

Inventors

- Gloria C. Koo, PhD, formerly at Memorial Sloan Kettering
- JoAnne R. Peppard, formerly at Memorial Sloan Kettering

Key References

- Koo GC and Peppard JR (1984) Establishment of monoclonal anti- Nk-1.1 antibody. *Hybridoma* 3: 301-303. PMID: [6500587](#)
- Koo GC et al. (1986) The NK-1.1(-) mouse: a model to study differentiation of murine NK cells. *Journal of Immunology*. 137: 3742-3747. PMID: [3782794](#)
- Reichlin A and Yokoyama WM (1998) Natural killer cell proliferation induced by anti-NK1.1 and IL-2. *Immunology and Cell Biology* 76: 143-152. PMID: [9619484](#)
- Kung SK et al. (1999) The NKR-PIB gene product is an inhibitory receptor on SJL/J NK cells. *Journal of Immunology* 162: 5876-5887. PMID: [10229823](#)

MSK Tracking Code: SK 787

Anti-TRP1 Mouse Monoclonal Antibody (Clone TA99)

Antigen: Human TRP1 (TYRP1, PAA, gp75)

Clone Name: TA99

Isotype: Mouse IgG2a

Application(s): Immunocytochemistry, Immunohistochemistry, Immunoprecipitation, Western Blot

Reactivity*: Mouse, Human

*As reported in the literature and other commercial supplier websites

Description

Clone TA99 is a mouse monoclonal antibody that reacts with tyrosinase- related protein 1 (TRP1), a 75kDa differentiation-related human glycoprotein (gp75), formerly referred to as pigmentation-associated antigen (PAA). It is expressed by pigmented melanoma cells and cultured melanocytes. TRP1 is involved in the pigmentation machinery of melanocytes and can be used as a differentiation marker.

Source

This antibody was derived in 1985 by injection of whole human melanoma cells (SK-MEL-23) into mice. Splenocytes from these immunized mice were fused with NS-1 cells to generate hybridomas producing anti-TRP1 antibodies.

Inventors

- Francisco X. Real, MD, PhD, formerly at Memorial Sloan Kettering
- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, Memorial Sloan Kettering; former Director, New York Branch, Ludwig Institute for Cancer Research
- Timothy M. Thomson, MD, PhD

Key References

- Thomson TM et al. (1985) Pigmentation-Associated Glycoprotein of Human Melanomas and Melanocytes: Definition with a Mouse Monoclonal Antibody. *Journal of Investigative Dermatology* 85: 169-174. PMID: [3926906](#)
- Bevaart L et al. (2006) The high-affinity IgG receptor, FcγRI, plays a central role in antibody therapy of experimental melanoma. *Cancer Research* 66: 1261-1264. PMID: [16452176](#)

MSK Tracking Code: SK 413

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



Anti-Mre-11 Hamster Monoclonal Antibody (Clone 15B8.1E7.6)

Antigen: Mouse Mre11

Clone Name: 15B8.1E7.6

Isotype: Armenian Hamster IgG

Application*: Western Blot

Reactivity*: Mouse, Human

*As reported in the literature and other commercial supplier websites

Description

Armenian hamster hybridoma clone 15B8.1E7.6 produces antibodies directed against mMre11. Mre11 is a component of the Mre11 complex, which plays a central role in double-strand break (DSB) repair, DNA recombination, DNA damage signaling through ATM, maintenance of telomere integrity, and meiosis.

Source

Raised against a GST-tagged mMre11 peptide (aa68-608) in Armenian hamster.

Inventors

- MSK Antibody and Bioresource Core Facility, MSK
- John Petrini, PhD, Laboratory Head, Molecular Biology Program, MSK

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



CELL LINES

Brain & Nervous System



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SH-SY5Y: Human Neuroblastoma Cell Line (ATCC Catalogue No. CRL-2266)

Description

SH-SY5Y is a twice-subcloned cell line derived from the SK-N-SH neuroblastoma cell line. It serves as a model for neurodegenerative disorders since the cells can be converted to various types of functional neurons by the addition of specific compounds. In addition, the SH-SY5Y cell line has been used widely in experimental neurological studies, including analysis of neuronal differentiation, metabolism, and function related to neurodegenerative processes, neurotoxicity, and neuroprotection.

Source

This cell line was derived from the SH-SY subclone of the parental SK-N-SH human neuroblastoma cell line. The parental SK-N-SH cell line was established in 1970 from metastatic cells found in the bone marrow aspirate of a four-year-old female of unknown ethnicity.

Inventors

- June L. Biedler, PhD, former Chairman, Cell Biology and Genetics Program, Sloan Kettering Institute, MSK
- Barbara A. Spengler, formerly at Sloan Kettering Institute, MSK

Key References

- Ross RA et al. (1983) Coordinate morphological and biochemical interconversion of human neuroblastoma cells. *Journal of the National Cancer Institute* 71: 741-748. PMID: [6137586](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRIM@mskcc.org.

MSK Tracking Code: SK 810

SK-MG-01: Human Brain Astrocytoma Cell Line

Description

SK-MG-01 is a human brain cancer cell line.

Source

This cell line was established from a person with astrocytoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Cairncross J.G., Mattes M.J., Beresford H.R., Albino A.P., Houghton A.N., Lloyd K.O., Old L.J. Cell surface antigens of human astrocytoma defined by mouse monoclonal antibodies: identification of astrocytoma subsets. *Proc. Natl. Acad. Sci. U.S.A.* 79:5641-5645(1982). PMID: [6182568](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-MG-02: Human Brain Astrocytoma Cell Line

Description

SK-MG-02 is a human brain cancer cell line.

Source

This cell line was established from a person with astrocytoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Cairncross J.G., Mattes M.J., Beresford H.R., Albino A.P., Houghton A.N., Lloyd K.O., Old L.J. Cell surface antigens of human astrocytoma defined by mouse monoclonal antibodies: identification of astrocytoma subsets. *Proc. Natl. Acad. Sci. U.S.A.* 79:5641-5645(1982). PMID: [6182568](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-MG-03: Human Brain Astrocytoma Cell Line

Description

SK-MG-03 is a human brain cancer cell line.

Source

This cell line was established from a person with astrocytoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Cairncross J.G., Mattes M.J., Beresford H.R., Albino A.P., Houghton A.N., Lloyd K.O., Old L.J. Cell surface antigens of human astrocytoma defined by mouse monoclonal antibodies: identification of astrocytoma subsets. *Proc. Natl. Acad. Sci. U.S.A.* 79:5641-5645(1982). PMID: [6182568](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.



SK-MG-04: Human Brain Astrocytoma Cell Line

Description

SK-MG-04 is a human brain cancer cell line.

Source

This cell line was established from a person with astrocytoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Cairncross J.G., Mattes M.J., Beresford H.R., Albino A.P., Houghton A.N., Lloyd K.O., Old L.J. Cell surface antigens of human astrocytoma defined by mouse monoclonal antibodies: identification of astrocytoma subsets. *Proc. Natl. Acad. Sci. U.S.A.* 79:5641-5645(1982). PMID: [6182568](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-MG-05: Human Brain Astrocytoma Cell Line

Description

SK-MG-05 is a human brain cancer cell line.

Source

This cell line was established from a person with astrocytoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Mattes M.J., Cordon-Cardo C., Lewis J.L. Jr., Old L.J., Lloyd K.O. Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proc. Natl. Acad. Sci. U.S.A.* 81:568-572(1984). PMID: [6582512](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-MG-06: Human Brain Astrocytoma Cell Line

Description

SK-MG-06 is a human brain cancer cell line.

Source

This cell line was established from a person with astrocytoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Mattes M.J., Cordon-Cardo C., Lewis J.L. Jr., Old L.J., Lloyd K.O. Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proc. Natl. Acad. Sci. U.S.A.* 81:568-572(1984). PMID: [6582512](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-MG-07: Human Brain Astrocytoma Cell Line

Description

SK-MG-07 is a human brain cancer cell line.

Source

This cell line was established from a person with astrocytoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Cairncross J.G., Mattes M.J., Beresford H.R., Albino A.P., Houghton A.N., Lloyd K.O., Old L.J. Cell surface antigens of human astrocytoma defined by mouse monoclonal antibodies: identification of astrocytoma subsets. *Proc. Natl. Acad. Sci. U.S.A.* 79:5641-5645(1982). PMID: [6182568](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.



SK-MG-08: Human Brain Astrocytoma Cell Line

Description

SK-MG-08 is a human brain cancer cell line.

Source

This cell line was established from a person with astrocytoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Mattes M.J., Cordon-Cardo C., Lewis J.L. Jr., Old L.J., Lloyd K.O. Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proc. Natl. Acad. Sci. U.S.A.* 81:568-572(1984). PMID: [6582512](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-MG-09: Human Brain Astrocytoma Cell Line

Description

SK-MG-09 is a human brain cancer cell line.

Source

This cell line was established from a person with astrocytoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Mattes M.J., Cordon-Cardo C., Lewis J.L. Jr., Old L.J., Lloyd K.O. Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proc. Natl. Acad. Sci. U.S.A.* 81:568-572(1984). PMID: [6582512](#)
- Cairncross J.G., Mattes M.J., Beresford H.R., Albino A.P., Houghton A.N., Lloyd K.O., Old L.J. Cell surface antigens of human astrocytoma defined by mouse monoclonal antibodies: identification of astrocytoma subsets. *Proc. Natl. Acad. Sci. U.S.A.* 79:5641-5645(1982). PMID: [6182568](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see here for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see here. Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.



SK-MG-10: Human Brain Astrocytoma Cell Line

Description

SK-MG-10 is a human brain cancer cell line.

Source

This cell line was established from a person with astrocytoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Cairncross J.G., Mattes M.J., Beresford H.R., Albino A.P., Houghton A.N., Lloyd K.O., Old L.J. Cell surface antigens of human astrocytoma defined by mouse monoclonal antibodies: identification of astrocytoma subsets. *Proc. Natl. Acad. Sci. U.S.A.* 79:5641-5645(1982). PMID: [6182568](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-N-BE(2): Human Neuroblastoma Cell Line (ATCC Catalogue No. CRL-2271)

Description

SK-N-BE(2) is a neuroblastoma cell line that displays MYCN amplification. These cells have moderate dopamine-b-hydroxylase activity and low-choline acetyltransferase activity. The SK-N-BE(2) cells are known to form tumors in immunocompromised mice.

Source

This cell line was established in 1972 from a metastatic site (bone marrow) in a two-year-old Caucasian male with malignant neuroblastoma.

Inventors

- June L. Biedler, PhD, former Chairman, Cell Biology and Genetics Program, Sloan Kettering Institute, MSK
- Barbara A. Spengler, formerly at Sloan Kettering Institute, MSK

Key References

- Biedler JL et al. (1976) A novel chromosome abnormality in human neuroblastoma and antifolate-resistant Chinese hamster cell lines in culture. *Journal of the National Cancer Institute* 57: 683-695. PMID: [62055](#)
- Biedler JL et al. (1978) Multiple neurotransmitter synthesis by human neuroblastoma cell lines and clones. *Cancer Research* 38: 3751-3757. PMID: [29704](#)
- Veas-Perez De Tudela M et al. (2010) Human neuroblastoma cells with MYCN amplification are selectively resistant to oxidative stress by transcriptionally up-regulating glutamate cysteine ligase. *Journal of Neurochemistry* 113: 819-825. PMID: [20180881](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: SK1980-530

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-N-BE(2)-C: Human Neuroblastoma Cell Line (ATCC Catalogue No. CRL-2268)

Description

SK-N-BE(2)-C is a clonal subline of the SK-N-BE(2) neuroblastoma cell line. Like the parental cell line, these cells display MYCN amplification. Treatment with trans-retinoic acid differentiates these cells into a distinct neuronal phenotype. These cells display high levels of tyrosine hydroxylase activity and dopamine-b-hydroxylase activity.

Source

This cell line is a subclone of the SK-N-BE(2) neuroblastoma cell line.

The parental cell line was established in 1972 from a metastatic site (bone marrow) in a two-year-old Caucasian male with malignant neuroblastoma.

Inventors

- June L. Biedler, PhD, former Chairman, Cell Biology and Genetics Program, Sloan Kettering Institute, MSK
- Barbara A. Spengler, formerly at Sloan Kettering Institute, MSK

Key References

- Ciccarone V et al. (1989) Phenotypic diversification in human neuroblastoma cells: expression of distinct neural crest lineages. *Cancer Research* 49: 219-225. PMID: [2535691](#)
- Qiao J et al. (2012) PI3K/AKT and ERK regulate retinoic acid- induced neuroblastoma cellular differentiation. *Biochemical and Biophysical Research Communications* 424: 421-426. PMID: [22766505](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Express License [here](#). After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed instructions about how to fill in this contract, see [here](#). In order to streamline and expedite For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: SK1980-532

SK-N-MC: Human Neuroblastoma Cell Line (ATCC Catalogue No. HTB-10)

Description

SK-N-MC was originally described as a neuroblastoma cell line. It is now widely regarded as having originated from an Askin's tumor (Ewing family of tumors). These cells harbor the oncogenic EWS-FLI1 chromosomal rearrangement. They were initially found to contain double-minute chromosomes, which were lost upon prolonged *in vitro* culture. The SK-N-MC cells have little or no dopamine-b-hydroxylase activity but show elevated choline acetyltransferase activity compared to other neuroblastoma cell lines such as the SK-N-SH and SH-SY5Y. These cells are known to form tumors in immunocompromised mice.

Source

This cell line was established in 1971 from a metastatic site (supra-orbital region) in a 14-year-old Caucasian female with an Askin's tumor.

Inventors

- June L. Biedler, PhD, former Chairman, Cell Biology and Genetics Program, Sloan Kettering Institute, MSK
- Lawrence Helson, MD, formerly at MSK
- Barbara A. Spengler, formerly at Sloan Kettering Institute, MSK

Key References

- Biedler JL et al. (1973) Morphology and growth, tumorigenicity, and cytogenetics of human neuroblastoma cells in continuous culture. *Cancer Research* 33: 2643-2652. PMID: [4748425](#)
- Helson L et al. (1975) Human neuroblastoma in nude mice. *Cancer Research* 35: 2594-2599. PMID: [167965](#)
- Biedler JL et al. (1978) Multiple neurotransmitter synthesis by human neuroblastoma cell lines and clones. *Cancer Research* 38: 3751-3757. PMID: [29704](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: SK 776

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-N-SH: Human Neuroblastoma Cell Line (ATCC Catalogue No. HTB-11)

Description

SK-N-SH is a neuroblastoma cell line that displays epithelial morphology and grows in adherent culture. Treatment with all-trans-retinoic acid causes these cells to differentiate and adopt a neuronal phenotype, characterized by extensive neurite outgrowth. This makes them particularly useful for delineating signaling pathways involved in neuronal differentiation. In addition, the SK-N-SH cells are known to form tumors in immunocompromised mice.

Source

This cell line was established in 1970 from metastatic cells found in the bone marrow aspirate of a four-year-old female of unknown ethnicity.

Inventors

- June L. Biedler, PhD, former Chairman, Cell Biology and Genetics Program, Sloan Kettering Institute, Memorial Sloan Kettering Cancer Center
- Barbara A. Spengler, formerly at Sloan Kettering Institute, Memorial Sloan Kettering Cancer Center

Key References

- Biedler JL et al. (1973) Morphology and growth, tumorigenicity, and cytogenetics of human neuroblastoma cells in continuous culture. *Cancer Research* 33: 2643-2652 (PubMed ID: [4748425](#))
- Helson L et al. (1975) Human neuroblastoma in nude mice. *Cancer Research* 35: 2594-2599 (PubMed ID: [167965](#))

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRIM@mskcc.org.

MSK Tracking Code: SK1980-529

TS543: Human Glioblastoma Cell Line

Description

TS543 is a human brain cancer cell line.

Source

This cell line was established from a brain metastasis in a person with glioblastoma.

Lead Researcher/Research Laboratory

- Cameron W. Brennan, MD, Laboratory Head, Memorial Hospital Research, MSK
- Ingo Mellinghoff, MD, FACP, Chair, Department of Neurology; Chief Brain Tumor Service, Evnin Family Chair in Neuro-Oncology, MSKCC

Key References

- Vivanco I, Rohle D, Versele M, Iwanami A, Kuga D, Oldrini B, Tanaka K, Dang J, Kubek S, Palaskas N, Hsueh T, Evans M, Mulholland D, Wolle D, Rajasekaran S, Rajasekaran A, Liao LM, Cloughesy TF, Dikic I, Brennan C, Wu H, Mischel PS, Perera T, Mellinghoff IK. The phosphatase and tensin homolog regulates epidermal growth factor receptor (EGFR) inhibitor response by targeting EGFR for degradation. *Proc Natl Acad Sci U S A*. 2010 Apr 6;107(14):6459-64. PMID: [20308550](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



TS600: Human Glioblastoma Cell Line

Description

TS600 is a human brain cancer cell line.

Source

This cell line was established from a brain metastasis in a person with glioblastoma.

Lead Researcher/Research Laboratory

- Cameron W. Brennan, MD, Laboratory Head, Memorial Hospital Research, MSK
- Ingo Mellinghoff, MD, FACP, Chair, Department of Neurology; Chief Brain Tumor Service, Evnin Family Chair in Neuro-Oncology, MSKCC

Key References

- Inda MM, Bonavia R, Mukasa A, Narita Y, Sah DW, Vandenberg S, Brennan C, Johns TG, Bachoo R, Hadwiger P, Tan P, Depinho RA, Cavenee W, Furnari F. Tumor heterogeneity is an active process maintained by a mutant EGFR-induced cytokine circuit in glioblastoma. *Genes Dev.* 2010 Aug 15;24(16):1731-45. PMID: [20713517](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

TS603: Human Glioblastoma Cell Line

Description

TS603 is a human brain cancer cell line with a mutant IDH1 (R132H) gene.

Source

This cell line was established from a brain metastasis in a person with glioblastoma.

Lead Researcher/Research Laboratory

- Cameron W. Brennan, MD, Laboratory Head, Memorial Hospital Research, MSK
- Ingo Mellinghoff, MD, FACP, Chair, Department of Neurology; Chief Brain Tumor Service, Evnin Family Chair in Neuro-Oncology, MSKCC

Key References

- Rohle D, Popovici-Muller J, Palaskas N, Turcan S, Grommes C, Campos C, Tsoi J, Clark O, Oldrini B, Komisopoulou E, Kunii K, Pedraza A, Schalm S, Silverman L, Miller A, Wang F, Yang H, Chen Y, Kernysky A, Rosenblum MK, Liu W, Biller SA, Su SM, Brennan CW, Chan TA, Graeber TG, Yen KE, Mellinghoff IK. An inhibitor of mutant IDH1 delays growth and promotes differentiation of glioma cells. *Science.* 2013 May 3;340(6132):626-30. PMID: [23558169](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



TS676: Human Glioblastoma Cell Line

Description

TS676 is a human cancer cell line with a wildtype IDH1 gene.

Source

This cell line was established from a brain metastasis in a person with glioblastoma.

Lead Researcher/Research Laboratory

- Cameron W. Brennan, MD, Laboratory Head, Memorial Hospital Research, MSK
- Ingo Mellinghoff, MD, FACP, Chair, Department of Neurology; Chief Brain Tumor Service, Evin Family Chair in Neuro-Oncology, MSKCC

Key References

- Rohle D, Popovici-Muller J, Palaskas N, Turcan S, Grommes C, Campos C, Tsoi J, Clark O, Oldrini B, Komisopoulou E, Kunii K, Pedraza A, Schalm S, Silverman L, Miller A, Wang F, Yang H, Chen Y, Kernytsky A, Rosenblum MK, Liu W, Biller SA, Su SM, Brennan CW, Chan TA, Graeber TG, Yen KE, Mellinghoff IK. An inhibitor of mutant IDH1 delays growth and promotes differentiation of glioma cells. *Science*. 2013 May 3;340

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.



CELL LINES

Breast Cancer



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



CAMA-1: Human Breast Cancer Cell Line (ATCC Catalogue No. HTB-21)

Description

CAMA-1 is a luminal-type human breast cancer cell line that displays rounded morphology in adherent tissue culture. These cells are considered Her2-negative and estrogen-receptor/progesterone-receptor (ER/PR)-positive. They are responsive to estrogen and sensitive to growth inhibition by tamoxifen. The CAMA-1 cells have an in-frame mutation in the E-cadherin gene, resulting in a truncated, non-functional protein. In addition, they have oncogenic mutations in PTEN and p53 and amplification of the cyclin D1 gene.

Source

This cell line was established in 1975 from the pleural effusion of a 51-year-old Caucasian female with malignant adenocarcinoma of the breast.

Lead Inventor

- Jorgen Fogh, PhD, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) Absence of HeLa cell contamination in 169 cell lines derived from human tumors. *Journal of the National Cancer Institute* 58: 209-214. PMID: [833871](#)
- Ji H et al. (1994) Absence of transforming growth factor-beta responsiveness in the tamoxifen growth-inhibited human breast cancer cell line CAMA-1. *Journal of Cellular Biochemistry* 54: 332-342. PMID: [8200913](#)
- van Horssen R et al. (2012) E-cadherin promotor methylation and mutation are inversely related to motility capacity of breast cancer cells. *Breast Cancer Research and Treatment* 136: 365-377. PMID: [23053649](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: SK 926

SK-BR-3: Human Breast Cancer Cell Line (ATCC Catalogue No. HTB-30)

Description

SK-BR-3 is a human breast cancer cell line that overexpresses the Her2 (Neu/ErbB-2) gene product. These cells display an epithelial morphology in tissue culture and are capable of forming poorly differentiated tumors in immunocompromised mice. The SK-BR-3 cells and products derived from it are used often as positive controls in assays for Her2. In addition, the cell line is also a useful preclinical model to screen for therapeutic agents targeting Her2 and to delineate mechanisms of resistance to Her2-targeted therapies.

Source

This cell line was established in 1970 from the pleural effusion of a 43-year-old Caucasian female with malignant adenocarcinoma of the breast.

Inventors

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research
- Germain Trempe, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. *Journal of the National Cancer Institute* 59: 221-226. PMID: [327080](#)

MSK Tracking Code: SK 808

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-BR-5: Human Breast Cancer Cell Line (aka SK-BR-05)

Description

SK-BR-05 is a human breast cancer cell line.

Source

This cell line was established from a breast metastasis in a female with breast carcinoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Mattes M.J., Cordon-Cardo C., Lewis J.L. Jr., Old L.J., Lloyd K.O. Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proc. Natl. Acad. Sci. U.S.A.* 81:568-572(1984). PMID: [6582512](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-BR-7: Human Breast Cancer Cell Line (aka SK-BR-07)

Description

SK-BR-07 is a human breast cancer cell line.

Source

This cell line was established from a breast metastasis in a female with breast carcinoma.

Lead Researcher/Research Laboratory

- Jorgen Fogh, PhD, formerly of Sloan Kettering Institute, MSK
- Germaine Trempe, formerly of Sloan Kettering Institute, MSK

Key References

- Davidson J.M., Gorringer K.L., Chin S.-F., Orsetti B., Besret C., Courtay-Cahen C., Roberts I., Theillet C., Caldas C., Edwards P.A.W. Molecular cytogenetic analysis of breast cancer cell lines. *Br. J. Cancer* 83:1309-1317(2000). PMID: [11044355](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK1041: Organ-Tropic Metastatic Breast Cancer Cell Line Portfolio

Description

This invention is a portfolio of human breast cancer cell lines selected to metastasize to specific organs. The cell lines are useful both for studying the biological mechanisms of breast cancer metastasis and for screening compounds for anti-metastatic activity.

Highlighted in this portfolio are cell lines jointly owned by MSK and M.D. Anderson; they are available for licensing by MSK through an inter-institutional agreement.

In addition to the cell lines included in this panel (and more fully described in marketing sheets throughout this catalogue), MSK has other organ-tropic metastatic breast cancer cell lines available for licensing; in some cases the IP is jointly owned with other institutions. For more information, please contact TRMOTDRIM@mskcc.org.

Source

The SK1041 cell lines were derived from the human breast cancer cell line MDA-MB-231 following multiple rounds of *in vivo* selection in immunodeficient mice. They exhibit unique metastatic capacities compared to the parental MDA-MB-231 line, including organ-selective homing, distinct transcriptional profiles, and more aggressive phenotypes.

The portfolio includes lung-, bone-, brain-, and adrenal-selective metastatic derivatives in addition to cell lines with increased capacity for tumor self-seeding, a process in which circulating tumor cells return to and grow in the primary tumor, promoting tumor progression and further metastasis. Subsets of these populations have been engineered to express reporter plasmids, including a novel triple-modality reporter that permits nuclear, fluorescent, and bioluminescence imaging in a single experimental model.

Advantages

- *In vivo* metastatic lesions develop twice as fast and with a three-fold increase in penetrance compared to parental cell line (~6 weeks with ~90% penetrance vs. ~11 weeks with ~30% penetrance), reducing time and cost for each experiment.
- Aggressive phenotype allows easy detection of metastatic lesions by imaging and histochemical methods.
- These cell lines can be used for both *in vivo* and *in vitro* modeling (i.e. trans-well, Matrigel migration, etc.) of metastasis.

Lead Inventor

Joan Massagué, PhD, Chief Scientific Officer and Laboratory Head, Cancer Biology & Genetics Program, MSK

Key References

- Cailleau R, et al. (1974) J Natl Cancer Inst. Sep;53(3):661-74, PMID: [4412247](#).
- Kang Y, et al. (2003) Cancer Cell. June;3(6):537-49, PMID: [12842083](#).
- Minn AJ, et al. (2005) J Clin Invest. Jan;115(1):44-55, PMID: [15630443](#).
- Bos PD, et al. (2009) Nature. Jun 18;459(7249):1005-9. Epub 2009 May 6, PMID: [19421193](#).
- Kim MY, et al. (2009) Cell. Dec 24;139(7):1315-26, PMID: [20064377](#).

Cell Line	Tissue of Origin	Organ-Tropic Location
MDA-231-AdM-1834	Breast	Adrenal gland
MDA-231-BoM-1833	Breast	Bone
MDA-231-BoM-2287	Breast	Bone
MDA231-BrM2-831	Breast	Brain
MDA231-LM2-4175	Breast	Lung
MDA-MB-231 TGL aka MDA231-TGL	Breast	Parental line

Note: The parental MDA-MB-231 was established at MD Anderson.

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



MDA-231-AdM-1834: Human Breast Adenocarcinoma Cell Line

Description

MDA-231-AdM-1834 is a breast adenocarcinoma cell line established from the MDA231-TGL cell line and is an adrenal gland-selective metastatic derivative.

This cell line is part of a panel of human breast cancer cell lines selected to metastasize to specific organs. For the complete panel, see SK1041 (Organ-Tropic Metastatic Breast Cancer Cell Line Portfolio).

Source

This cell line was established from a 51-year-old female of Caucasian ethnicity and was derived from a metastatic site of pleural effusion.

Lead Inventor

- Joan Massagué, PhD, Chief Scientific Officer and Laboratory Head, Cancer Biology & Genetics Program, MSK

This cell line is jointly owned with MD Anderson and is available for licensing through an interinstitutional agreement.

Key References

- Minn A et al. (2005) Genes that mediate breast cancer metastasis to lung. *Nature* 436(7050) 518-524. PMID: [16049480](#)

MDA-231-BoM-1833: Human Breast Adenocarcinoma Cell Line

Description

MDA-231-BoM-1833 is a breast adenocarcinoma cell line established from bone metastasis of nude mice inoculated with the parent cell line. It is a triple negative breast cancer (TNBC) cell line.

This cell line is part of a panel of human breast cancer cell lines selected to metastasize to specific organs. For the complete panel, see SK1041 (Organ-Tropic Metastatic Breast Cancer Cell Line Portfolio).

Source

This cell line was established from a 51-year-old female of Caucasian ethnicity and was derived from a metastatic site of pleural effusion.

Lead Inventor

- Joan Massagué, PhD, Chief Scientific Officer and Laboratory Head, Cancer Biology & Genetics Program, MSK

This cell line is jointly owned with MD Anderson and is available for licensing through an interinstitutional agreement.

Key References

- Cox T et al. (2015) Dataset for the proteomic inventory and quantitative analysis of the breast cancer hypoxic secretome associated with osteotropism. *Data in brief*, 5, 621-625.. PMID: [26649326](#)
- Kang y et al. (2003) A multigenic program mediating breast cancer metastasis to bone. *Cancer cell*, 3(6), 537-549.. PMID: [12842083](#)
- Minn A et al. (2005) Genes that mediate breast cancer metastasis to lung. *Nature* 436(7050) 518-524.. PMID: [16049480](#)
- Selicharova I et al. (2008) 2-DE analysis of breast cancer cell lines 1833 and 4175 with distinct metastatic organ-specific potentials: comparison with parental cell line MDA-MB-231. *Oncology reports*, 19(5), 1237-1244. PMID: [18424382](#)

Cellosaurus code: RRID: [CVCL_DP48](#)



MDA-231-BoM-2287: Human Breast Adenocarcinoma Cell Line

Description

MDA-231-BoM-2287 is a breast adenocarcinoma cell line established from a bone-selective metastatic derivative of the parental MDA231-TGL cell line.

This cell line is part of a panel of human breast cancer cell lines selected to metastasize to specific organs. For the complete panel, see SK1041 (Organ-Tropic Metastatic Breast Cancer Cell Line Portfolio).

Source

This cell line was established from a 51-year-old female of Caucasian ethnicity and was derived from a metastatic site of pleural effusion.

Lead Inventor

- Joan Massagué, PhD, Chief Scientific Officer and Laboratory Head, Cancer Biology & Genetics Program, MSK

This cell line is jointly owned with MD Anderson and is available for licensing through an interinstitutional agreement.

MDA231-BrM2-831: Human Breast Adenocarcinoma Cell Line

Description

MDA231-BrM2-831 is a breast adenocarcinoma cell line established from the MDA231-TGL cell line after 2 passage in nude mice. It is a triple negative breast cancer (TNBC) cell line and a brain-selective metastatic derivative.

This cell line is part of a panel of human breast cancer cell lines selected to metastasize to specific organs. For the complete panel, see SK1041 (Organ-Tropic Metastatic Breast Cancer Cell Line Portfolio).

Source

This cell line was established from a 51-year-old female of Caucasian ethnicity and was derived from a metastatic site of pleural effusion.

Lead Inventor

- Joan Massagué, PhD, Chief Scientific Officer and Laboratory Head, Cancer Biology & Genetics Program, MSK

This cell line is jointly owned with MD Anderson and is available for licensing through an interinstitutional agreement.

Key References

- Minn A et al. (2005) Genes that mediate breast cancer metastasis to lung. *Nature* 436(7050) 518-524.. PMID: [16049480](#)
- Boire A et al. (2017) Complement Component 3 Adapts the Cerebrospinal Fluid for Leptomeningeal Metastasis. *Cell*, 168(6), 1101-1113.e13.. PMID: [28283064](#)

Cellosaurus code: RRID: [CVCL_VR36](#)

MDA231-LM2-4175: Human Breast Adenocarcinoma Cell Line

Description

MDA231-LM2-4175 is a breast adenocarcinoma cell line established from the MDA231-TGL cell line after 3 passage in nude mice. It is a triple negative breast cancer (TNBC) cell line and a lung-selective metastatic derivative.

This cell line is part of a panel of human breast cancer cell lines selected to metastasize to specific organs. For the complete panel, see SK1041 (Organ-Tropic Metastatic Breast Cancer Cell Line Portfolio).

Source

This cell line was established from a 51-year-old female of Caucasian ethnicity and was derived from a metastatic site of pleural effusion.

Lead Inventor

- Joan Massagué, PhD, Chief Scientific Officer and Laboratory Head, Cancer Biology & Genetics Program, MSK

This cell line is jointly owned with MD Anderson and is available for licensing through an interinstitutional agreement.

Key References

- Minn A et al. (2005) Genes that mediate breast cancer metastasis to lung. *Nature* 436(7050) 518-524.. PMID: [16049480](#)
- Selicharova I et al. (2008) 2-DE analysis of breast cancer cell lines 1833 and 4175 with distinct metastatic organ-specific potentials: comparison with parental cell line MDA-MB-231. *Oncology reports*, 19(5), 1237-1244.. PMID: [18424382](#)

Cellosaurus code: RRID: [CVCL_5998](#)

MDA-MB-231 TGL: Human Breast Adenocarcinoma Cell Line

Description

MDA-MB-231 TGL is a parental breast adenocarcinoma cell line and a triple negative breast cancer (TNBC) cell line.

This cell line is part of a panel of human breast cancer cell lines selected to metastasize to specific organs. For the complete panel, see SK1041 (Organ-Tropic Metastatic Breast Cancer Cell Line Portfolio).

Source

This cell line was established from a 51-year-old female of Caucasian ethnicity and was derived from a metastatic site of pleural effusion.

Lead Inventor

- Joan Massagué, PhD, Chief Scientific Officer and Laboratory Head, Cancer Biology & Genetics Program, MSK

This cell line is jointly owned with MD Anderson and is available for licensing through an interinstitutional agreement.

Key References

- Minn A et al. (2005) Genes that mediate breast cancer metastasis to lung. *Nature* 436(7050) 518-524. PMID: [16049480](#)
- Boire A et al. (2017) Complement Component 3 Adapts the Cerebrospinal Fluid for Leptomeningeal Metastasis. *Cell*, 168(6), 1101-1113.e13.. PMID: [28283064](#)

Cellosaurus code: RRID: [CVCL_VR35](#)

CELL LINES

Cervical Cancer



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



HT-3: Human Cervical Cancer Cell Line (ATCC Catalogue No. HTB-32)

Description

HT-3 is a human cervical carcinoma cell line that grows in adherent culture. Although this cell line was initially classified as human papillomavirus (HPV) DNA negative, subsequent studies revealed that the cells harbor HPV30 DNA in their genome. The HT-3 cells have a homozygous mutation in the TP53 gene, resulting in the expression of the transactivation-defective, dominant negative form of the protein. These cells form tumors when injected subcutaneously into immunocompromised mice.

Source

This cell line was established in 1963 from a metastatic site (lymph node) in a 53-year-old Caucasian female.

Lead Inventor

- Jorgen Fogh, PhD, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. *Journal of the National Cancer Institute* 59: 221-226. PMID: [327080](#)
- Naeger LK et al. (1999) Bovine papillomavirus E2 protein activates a complex growth-inhibitory program in p53-negative HT-3 cervical carcinoma cells that includes repression of cyclin A and cdc25A phosphatase genes and accumulation of hypophosphorylated retinoblastoma protein. *Cell Growth & Differentiation* 10: 413-422. PMID: [10392903](#)
- Xiao X et al (2012) Metformin impairs the growth of liver kinase B1-intact cervical cancer cells. *Gynecologic Oncology* 127: 249-255. PMID: [22735790](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRIM@mskcc.org

MSK Tracking Code: SK 784-01

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



CELL LINES

Colorectal Cancer



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



HT-29: Human Colorectal Adenocarcinoma Cell Line (ATCC Catalogue No. HTB-38)

Description

HT-29 is a human colorectal adenocarcinoma cell line with epithelial morphology. These cells are sensitive to the chemotherapeutic drugs 5-fluorouracil and oxaliplatin, which are standard treatment options for colorectal cancer. In addition to being a xenograft tumor model for colorectal cancer, the HT-29 cell line is also used as an in-vitro model to study absorption, transport, and secretion by intestinal cells. Under standard culture conditions, these cells grow as a nonpolarized, undifferentiated multilayer. Altering culture conditions or treating the cells with various inducers, however, results in a differentiated and polarized morphology, characterized by the redistribution of membrane antigens and development of an apical brush-border membrane.

Source

This cell line was established in 1964 from the primary tumor of a 44-year-old Caucasian female with colorectal adenocarcinoma.

Lead Inventor

- Jorgen Fogh, PhD, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. *Journal of the National Cancer Institute* 59: 221-226. PMID: [327080](#)
- Cohen E et al. (1999) Induced differentiation in HT29, a human colon adenocarcinoma cell line. *Journal of Cell Science* 112: 2657- 2666. PMID: [10413674](#)
- Nautiyal J et al. (2011) Combination of dasatinib and curcumin eliminates chemo-resistant colon cancer cells. *Journal of Molecular Signaling* 6: 7. PMID: 21774804

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: SK 809

SK-CO-1: Human Colorectal Adenocarcinoma Cell Line (ATCC Catalogue No. HTB-39)

Description

SK-CO-1 is a human colorectal adenocarcinoma cell line that displays epithelial morphology and grows in adherent tissue culture. In culture, these cells are capable of invading through an extracellular matrix, such as Matrigel. SK-CO-1 cells do not form tumors when injected into immunocompromised mice, and rarely form colonies in soft agar.

These cells have oncogenic mutations in K-Ras (G12V) and adenomatous polyposis coli (APC) proteins.

Source

This cell line was established in 1972 from a metastatic site (ascites) in a 65-year-old Caucasian male with colorectal adenocarcinoma.

Inventors

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research
- Germain Trempe, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) Absence of HeLa cell contamination in 169 cell lines derived from human tumors. *Journal of the National Cancer Institute* 58: 209-214. PMID: [833871](#)
- Trainer DL et al. (1988) Biological characterization and oncogene expression in human colorectal carcinoma cell lines. *International Journal of Cancer* 41: 287-296. PMID: [3338874](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: SK2010-072

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-CO-10: Human Colon Carcinoma Cell Line

Description

SK-CO-10 is a human colon cancer cell line.

Source

This cell line was established from a colon metastasis in a female with colon carcinoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research
- Kenneth O. Lloyd, formerly of Cell Culture, Antibody, and Biochemistry Core, Sloan Kettering Institute, MSK

Key References

- Mattes M.J., Cordon-Cardo C., Lewis J.L. Jr., Old L.J., Lloyd K.O. Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proc. Natl. Acad. Sci. U.S.A.* 81:568-572(1984). PMID: [6582512](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-CO-15: Human Colon Carcinoma Cell Line

Description

SK-CO-15 is a human colon cancer cell line.

Source

This cell line was established from a colon metastasis in a person with colon carcinoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research
- Kenneth O. Lloyd, formerly of Cell Culture, Antibody, and Biochemistry Core, Sloan Kettering Institute, MSK

Key References

- Le Bivic A., Real F.X., Rodriguez-Boulan E. Vectorial targeting of apical and basolateral plasma membrane proteins in a human adenocarcinoma epithelial cell line. *Proc. Natl. Acad. Sci. U.S.A.* 86:9313-9317(1989). PMID: [2687880](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.



CELL LINES

Esophageal Cancer



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-GT-4: Human Esophageal Adenocarcinoma Cell Line, Primary (aka SK-GT-04)

Description

SK-GT-04 is a human esophageal carcinoma cell line.

Source

This cell line was established from an esophageal metastasis in a person with esophageal carcinoma.

Lead Researcher/Research Laboratory

- Anthony Albino, PhD, formerly with Memorial Sloan Kettering

Key References

- Altorki N., Schwartz G.K., Blundell M., Davis B.M., Kelsen D.P., Albino A.P. Characterization of cell lines established from human gastric-esophageal adenocarcinomas. Biologic phenotype and invasion potential. *Cancer* 72:649-657(1993). PMID: [8334620](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-NEP-1: Human Esophageal Adenocarcinoma Cell Line, Metastatic (aka SK-NEP-01)

Description

SK-NEP-1 was originally described as an anaplastic Wilms-tumor/renal-cancer cell line. It has, however, been reclassified as a cell line belonging to the Ewing sarcoma family of tumors, since these cells harbor the oncogenic *EWS-FLII* chromosomal rearrangement. These cells express mutant p53 and are known to form tumors in immunocompromised mice.

Source

This cell line was established in 1971 from a metastatic site (pleural effusion) in a 25-year-old Caucasian female.

Inventors

- Germain Trempe, formerly at Sloan Kettering Institute, MSK
- Jorgen Fogh, PhD, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. *Journal of the National Cancer Institute* 59: 221-226. PMID: [327080](#)
- Smith MA et al. (2008) SK-NEP-1 and Rh1 are Ewing family tumor lines. *Pediatric Blood & Cancer* 50: 703-706. PMID: [17154184](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

MSK Tracking Code: SK2008-052

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



CELL LINES

Head & Neck Cancer



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



MSK-921: Human Head & Neck Squamous Cell Line

Description

MSK-921 is a human head-and-neck cancer cell line.

Source

This cell line was established from a subject with head-and-neck squamous cell carcinoma.

Lead Researcher/Research Laboratory

- Peter G. Sacks, MD, former Associate Attending, Surgery, Memorial Hospital, MSK

Key References

- Xu L., Davidson B.J., Murty V.V.V.S., Li R.-G., Sacks P.G., Garin-Chesa P., Schantz S.P., Chaganti R.S.K. TP53 gene mutations and CCND1 gene amplification in head and neck squamous cell carcinoma cell lines. *Int. J. Cancer* 59:383-387(1994). PMID: [7927946](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

MSK-Leuk 1: Human Oral Leukoplakia Cell Line

Description

MSK-Leuk 1 is a human oral leukoplakia cancer cell line.

Source

This cell line was established from a female with oral leukoplakia.

Lead Researcher/Research Laboratory

- Peter G. Sacks, MD, former Associate Attending, Surgery, Memorial Hospital, MSK

Key References

- Sacks P.G. Cell, tissue and organ culture as *in vitro* models to study the biology of squamous cell carcinomas of the head and neck. *Cancer Metastasis Rev.* 15:27-51(1996). PMID: [8842478](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.



CELL LINES

Liver Cancer



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-HEP-1: Human Hepatic Adenocarcinoma Cell Line (ATCC Catalogue No. HTB-52)

Description

SK-HEP-1 is an immortal, human hepatic adenocarcinoma cell line that grows in adherent culture. This cell line is capable of forming tumors in immunocompromised mice. SK-HEP-1 cells in culture have been shown to produce fibronectin and functionally active alpha-1 protease inhibitor. In addition, they constitutively produce Interleukin-1.

Source

This cell line was established in 1971 from the ascites fluids of a 52-year-old Caucasian male with adenocarcinoma of the liver.

Inventors

- Germain Trempe, formerly at Sloan Kettering Institute, MSK
- Jorgen Fogh, PhD, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. *Journal of the National Cancer Institute* 59: 221-226. PMID: [327080](#)
- Glasgow JE et al. (1984) Fibronectin synthesized by a human hepatoma cell line. *Cancer Research* 44: 3022-3028. PMID: [6327032](#)
- Wang L et al. (2012) A novel monoclonal antibody to fibroblast growth factor 2 effectively inhibits growth of hepatocellular carcinoma xenografts. *Molecular Cancer Therapeutics* 11: 864-872. PMID: [22351746](#)

Comments

An alternative hypothesis regarding the origin of the SK-HEP-1 cells was presented by Heffelfinger and colleagues, who claim that these cells do not display properties of hepatocytes and are of endothelial origin. PMID: [1371504](#).

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRIM@mskcc.org.

MSK Tracking Code: SK1980-535

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



CELL LINES

Lung Cancer



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



Calu-1: Human Lung Squamous Cell Carcinoma Cell Line (aka Calu-01)

Description

Calu-1 is a non-small-cell lung cancer (NSCLC) cell line that grows in adherent culture and displays epithelial morphology. These cells express wildtype LKB1, wildtype EGFR, and mutant K-Ras (G12C). In addition, they lack expression of both p53 (homozygous deletion) and FHIT (Fragile Histidine Triad) tumor-suppressor proteins. The Calu-1 cells are intrinsically resistant to erlotinib, an EGFR tyrosine kinase inhibitor used in the treatment of NSCLC patients. These cells are capable of forming tumors in immunocompromised mice.

Source

This cell line was established in 1971 from a metastatic site (pleura) in a 47-year-old Caucasian male with epidermoid carcinoma of the lung.

Inventors

- Germain Trempe, formerly at Sloan Kettering Institute, MSK
- Jorgen Fogh, PhD, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. *Journal of the National Cancer Institute* 59: 221-226. PMID: [327080](#)
- Cavazzoni A et al. (2007) Effect of inducible FHIT and p53 expression in the Calu-1 lung cancer cell line. *Cancer Letters* 246: 69-81. PMID: [16616810](#)

Licensing Information

Express License: Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

MSK Tracking Code: SK 784

Calu-3: Human Lung Adenocarcinoma Cell Line, Metastatic (aka Calu-03)

Description

Calu-3 is a non-small-cell lung cancer cell line that grows in adherent culture and displays epithelial morphology. These cells have constitutively active ErbB2/Her2 due to amplification of the ERBB2 gene. They express wildtype EGFR and mutant K-Ras (G13D). In addition, they harbor mutations in TP53 and CDKN2A genes. The Calu-3 cells are sensitive to erlotinib (EGFR tyrosine kinase inhibitor) and cetuximab (a monoclonal antibody that blocks ligand binding to EGFR and prevents downstream signaling), two commonly used drugs targeting ErbB receptors. These cells are capable of forming tumors in immunocompromised mice.

Source

This cell line was established in 1975 from a metastatic site (pleural effusion) in a 25-year-old Caucasian male with adenocarcinoma of the lung.

Inventors

- Germain Trempe, formerly at Sloan Kettering Institute, MSK
- Jorgen Fogh, PhD, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. *Journal of the National Cancer Institute* 59: 221-226. PMID: [327080](#)
- Cavazzoni A et al. (2012) Combined use of anti-ErbB monoclonal antibodies and erlotinib enhances antibody-dependent cellular cytotoxicity of wild-type erlotinib-sensitive NSCLC cell lines. *Molecular Cancer* 11: 91. PMID: [23234355](#)
- Blanco R et al. (2009) A gene-alteration profile of human lung cancer cell lines. *Human Mutation* 30: 1199-1206. PMID: [19472407](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

MSK Tracking Code: SK1980-533

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



Calu-5: Human Lung Adenocarcinoma Cell Line (aka Calu-05)

Description

Calu-05 is a human lung adenocarcinoma cell line.

Source

This cell line was established in 1971 from lung metastasis in a person with lung adenocarcinoma.

Lead Researcher/Research Laboratory

- Jorgen Fogh, PhD, formerly at Sloan Kettering Institute, Memorial Sloan Kettering

Key References

- Fogh J. Human tumor lines for cancer research. *Cancer Invest.* 4:157-184(1986). PMID: [3518877](#)
- Kaplan D.H., Shankaran V., Dighe A.S., Stockert E., Aguet M., Old L.J., Schreiber R.D. Demonstration of an interferon gamma-dependent tumor surveillance system in immunocompetent mice. *Proc. Natl. Acad. Sci. U.S.A.* 95:7556-7561(1998). PMID: [9636188](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Calu-6: Human Lung Anaplastic Carcinoma Cell Line (aka Calu-06)

Description

CaLu-06 is a human lung adenocarcinoma cell line.

Source

This cell line was established in 1971 from lung metastasis in lung adenocarcinoma

Lead Researcher/Research Laboratory

- Jorgen Fogh, PhD, formerly at Sloan Kettering Institute, Memorial Sloan Kettering

Key References

- Wright W.C., Daniels W.P., Fogh J. Distinction of seventy-one cultured human tumor cell lines by polymorphic enzyme analysis. *J. Natl. Cancer Inst.* 66:239-247(1981). PMID: [6935474](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-LC-01: Human Lung Adenocarcinoma Cell Line

Description

SK-LC-01 is a human lung cancer cell line.

Source

This cell line was established from a lung metastasis in a 66-year-old female with lung adenocarcinoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Mattes M.J., Cordon-Cardo C., Lewis J.L. Jr., Old L.J., Lloyd K.O. Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proc. Natl. Acad. Sci. U.S.A.* 81:568-572(1984). PMID: [6582512](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-LC-02: Human Lung Adenocarcinoma Cell Line

Description

SK-LC-02 is a human lung cancer cell line.

Source

This cell line was established from a lung metastasis in a 65-year-old male with lung adenocarcinoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Anger B.R., Lloyd K.O., Oettgen H.F., Old L.J. Mouse monoclonal IgM antibody against human lung cancer line SK-LC-3 with specificity for H(O) blood group antigen. *Hybridoma* 1:139-147(1982). PMID: [6208122](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.



SK-LC-04: Human Lung Adenocarcinoma Cell Line

Description

SK-LC-04 is a human lung cancer cell line.

Source

This cell line was established from a lung metastasis in a patient with lung adenocarcinoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Mattes M.J., Cordon-Cardo C., Lewis J.L. Jr., Old L.J., Lloyd K.O. Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proc. Natl. Acad. Sci. U.S.A.* 81:568-572(1984). PMID: [6582512](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-LC-05: Human Lung Large Cell Carcinoma Cell Line

Description

SK-LC-05 is a human lung cancer cell line.

Source

This cell line was established from a lung metastasis in a patient with lung large cell carcinoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Mattes M.J., Cordon-Cardo C., Lewis J.L. Jr., Old L.J., Lloyd K.O. Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proc. Natl. Acad. Sci. U.S.A.* 81:568-572(1984). PMID: [6582512](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.



SK-LC-06: Human Lung Large Cell Anaplastic Carcinoma Cell Line

Description

SK-LC-06 is a human lung cancer cell line.

Source

This cell line was established from a lung metastasis in a female with lung large cell anaplastic carcinoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Anger B.R., Lloyd K.O., Oettgen H.F., Old L.J. Mouse monoclonal IgM antibody against human lung cancer line SK-LC-3 with specificity for H(O) blood group antigen. *Hybridoma* 1:139-147(1982). PMID: [6208122](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-LC-07: Human Lung Adenocarcinoma Cell Line

Description

SK-LC-07 is a human lung cancer cell line.

Source

This cell line was established from a lung metastasis in a patient with lung cancer.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Mattes M.J., Cordon-Cardo C., Lewis J.L. Jr., Old L.J., Lloyd K.O. Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proc. Natl. Acad. Sci. U.S.A.* 81:568-572(1984). PMID: [6582512](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-LC-08: Human Lung Squamous Cell Line

Description

SK-LC-08 is a human lung cancer cell line.

Source

This cell line was established from a lung metastasis from a patient with lung squamous cell carcinoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Anger B.R., Lloyd K.O., Oettgen H.F., Old L.J. Mouse monoclonal IgM antibody against human lung cancer line SK-LC-3 with specificity for H(O) blood group antigen. *Hybridoma* 1:139-147(1982). PMID: [6208122](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-LC-09: Human Lung Adenocarcinoma Cell Line

Description

SK-LC-09 is a human lung cancer cell line.

Source

This cell line was established from a lung metastasis from a patient with lung adenocarcinoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Mattes M.J., Cordon-Cardo C., Lewis J.L. Jr., Old L.J., Lloyd K.O. Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proc. Natl. Acad. Sci. U.S.A.* 81:568-572(1984). PMID: [6582512](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.



SK-LC-10: Human Lung Adenocarcinoma Cell Line

Description

SK-LC-10 is a human lung cancer cell line.

Source

This cell line was established from a lung metastasis from a person with lung adenocarcinoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Mattes M.J., Cordon-Cardo C., Lewis J.L. Jr., Old L.J., Lloyd K.O. Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proc. Natl. Acad. Sci. U.S.A.* 81:568-572(1984). PMID: [6582512](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-LC-11: Human Lung Adenocarcinoma Cell Line

Description

SK-LC-11 is a human lung cancer cell line.

Source

This cell line was established from a lung metastasis from a patient with lung adenocarcinoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Mattes M.J., Cordon-Cardo C., Lewis J.L. Jr., Old L.J., Lloyd K.O. Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proc. Natl. Acad. Sci. U.S.A.* 81:568-572(1984). PMID: [6582512](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.



SK-LC-12: Human Lung Adenocarcinoma Cell Line

Description

SK-LC-12 is a human lung cancer cell line.

Source

This cell line was established from a lung metastasis from a person with lung adenocarcinoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Anger B.R., Lloyd K.O., Oettgen H.F., Old L.J. Mouse monoclonal IgM antibody against human lung cancer line SK-LC-3 with specificity for H(O) blood group antigen. *Hybridoma* 1:139-147(1982). PMID: [6208122](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-LC-13: Human Lung Small Cell Carcinoma Cell Line

Description

SK-LC-13 is a human lung cancer cell line.

Source

This cell line was established from a lung metastasis from a person with lung small cell carcinoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Mattes M.J., Cordon-Cardo C., Lewis J.L. Jr., Old L.J., Lloyd K.O. Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proc. Natl. Acad. Sci. U.S.A.* 81:568-572(1984). PMID: [6582512](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.



SK-LC-14: Human Lung Squamous Cell Carcinoma Cell Line, Primary

Description

SK-LC-14 is a human lung cancer cell line.

Source

This cell line was established from a lung metastasis from a person with lung squamous cell carcinoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Mattes M.J., Cordon-Cardo C., Lewis J.L. Jr., Old L.J., Lloyd K.O. Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proc. Natl. Acad. Sci. U.S.A.* 81:568-572(1984). PMID: [6582512](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-LC-15: Human Lung Adenocarcinoma Cell Line, Primary

Description

SK-LC-15 is a human lung cancer cell line.

Source

This cell line was established from a lung metastasis from a person with lung adenocarcinoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Mattes M.J., Cordon-Cardo C., Lewis J.L. Jr., Old L.J., Lloyd K.O. Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proc. Natl. Acad. Sci. U.S.A.* 81:568-572(1984). PMID: [6582512](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.



SK-LC-16: Human Lung Adenocarcinoma Cell Line, Primary

Description

SK-LC-16 is a human lung cancer cell line.

Source

This cell line was established from a lung metastasis from a person with lung adenocarcinoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Mattes M.J., Cordon-Cardo C., Lewis J.L. Jr., Old L.J., Lloyd K.O. Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proc. Natl. Acad. Sci. U.S.A.* 81:568-572(1984). PMID: [6582512](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-LC-17: Human Lung Anaplastic Carcinoma Cell Line, Primary

Description

SK-LC-17 is a human lung cancer cell line.

Source

This cell line was established from a lung metastasis from a 66-year-old male with lung small cell carcinoma.

Lead Researcher/Research Laboratory

Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

Fogh J. Human tumor lines for cancer research. *Cancer Invest.* 4:157-184(1986). PMID: [3518877](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.



SK-LC-19: Human Lung Adenocarcinoma Cell Line

Description

SK-LC-19 is a human lung cancer cell line.

Source

This cell line was established from a lung metastasis from a person with lung carcinoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Kaplan D.H., Shankaran V., Dighe A.S., Stockert E., Aguet M., Old L.J., Schreiber R.D. Demonstration of an interferon gamma-dependent tumor surveillance system in immunocompetent mice. *Proc. Natl. Acad. Sci. U.S.A.* 95:7556-7561(1998). PMID: [9636188](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-LC-21: Human Lung Adenocarcinoma Cell Line

Description

SK-LC-21 is a human lung cancer cell line.

Source

This cell line was established from a lung metastasis from a person with lung carcinoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Licensing Information

Licensing Inf Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_547

SK-LU-1: Human Lung Adenocarcinoma Cell Line, Primary (aka SK-LU-01, ATCC Catalogue No. HTB-57)

Description

SK-LU-1 is a lung adenocarcinoma cell line that displays epithelial morphology and grows in adherent culture. This cell line expresses mutant K-Ras (G12D) and has homozygous deletions in the *CDH6* and *CDKN2A* genes. These cells do not express the enzyme telomerase reverse transcriptase (hTERT) and consequently lack telomerase activity. This correlates with significantly reduced tumorigenicity *in vitro* and *in vivo*. These cells, however, display characteristics of alternative telomere lengthening (ALT) mechanisms (i.e., heterogeneity of lengthening of telomeres and the presence of distinct nuclear structures called ALT-associated promyelocytic leukemia bodies). The SK-LU-1 cells do not form tumors when injected into immunocompromised mice.

Source

This cell line was established in 1969 from a 60-year-old Caucasian female with adenocarcinoma of the lung.

Lead Inventor

- Chester M. Southam, MD, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) Absence of HeLa cell contamination in 169 cell lines derived from human tumors. *Journal of the National Cancer Institute* 58: 209-214. PMID: [833871](#)
- Lehman TA et al. (1991) p53 mutations, ras mutations, and p53-heat shock 70 protein complexes in human lung carcinoma cell lines. *Cancer Research* 51: 4090-4096. PMID: [1855224](#)
- Brachner A et al. (2006) Telomerase- and alternative telomere lengthening-independent telomere stabilization in a metastasis-derived human non-small cell lung cancer cell line: effect of ectopic hTERT. *Cancer Research* 66: 3584-3592. PMID: [16585183](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Express License [here](#). After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed instructions about how to fill in this contract, see [here](#). In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. Please note: This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: SK2005-049

SK-MES-1: Human Lung Cancer Cell Line (ATCC Catalogue No. HTB-58)

Description

SK-MES-1 is a human lung cancer cell line that displays epithelial morphology and grows as monolayers in tissue culture. These cells exhibit a cytokeratin expression pattern typical of simple epithelia (i.e., CK7, CK8, CK18, and CK19), and similar to that found in adenocarcinomas. In addition, the expression of Lamins A, B, and C is readily detected in these cells. The SK-MES-1 cells are known to form tumors in immunocompromised mice.

Source

This cell line was established in 1970 from a metastatic site (pleural effusion) in a 65-year-old Caucasian male with squamous cell carcinoma of the lung.

Inventors

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK former Director, New York Branch, Ludwig Institute for Cancer Research
- Germain Trempe, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) Absence of HeLa cell contamination in 169 cell lines derived from human tumors. *Journal of the National Cancer Institute* 58: 209-214. PMID: [833871](#)
- Blobel GA et al. (1984) Cytokeratins in normal lung and lung carcinomas. I. Adenocarcinomas, squamous cell carcinomas and cultured cell lines. *Virchows Archiv, Cell Pathology Including Molecular Pathology* 45: 407-429. PMID: [6203212](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Express License [here](#). After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed instructions about how to fill in this contract, see [here](#). In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. Please note: This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: SK2009-091

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



CELL LINES

Lymphoma



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-LY-16: Human Lymphoma Cell Line

Description

SK-LY-16 is a human lymphoma cell line.

Source

This cell line was established from a B-cell in a person with lymphoma

Lead Researcher/Research Laboratory

- Jorgen Fogh, PhD, formerly at Sloan Kettering Institute, Memorial Sloan Kettering

Key References

- Williamson B.D., Carswell E.A., Rubin B.Y., Prendergast J.S., Old L.J. Human tumor necrosis factor produced by human B-cell lines: synergistic cytotoxic interaction with human interferon. *Proc. Natl. Acad. Sci. U.S.A.* 80:5397-5401(1983). PMID: [6193516](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-LY-18: Human B-Cell Non-Hodgkin Lymphoma Cell Line

Description

SK-LY-18 is a human lymphoma cell line.

Source

This cell line was established from a B-cell in a person with lymphoma

Lead Researcher/Research Laboratory

- Jorgen Fogh, PhD, formerly at Sloan Kettering Institute, Memorial Sloan Kettering

Key References

- Williamson B.D., Carswell E.A., Rubin B.Y., Prendergast J.S., Old L.J. Human tumor necrosis factor produced by human B-cell lines: synergistic cytotoxic interaction with human interferon. *Proc. Natl. Acad. Sci. U.S.A.* 80:5397-5401(1983). PMID: [6193516](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



CELL LINES

Melanoma



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



HT-144: Human Melanoma Cell Line (ATCC Catalogue No. HTB-63)

Description

HT-144 is a malignant human melanoma cell line that displays aneuploid fibroblastic morphology and grows in adherent tissue culture. This cell line has been reported to be nonpermissive for human cytomegalovirus (HCMV). HT-144 cells form xenograft tumors when injected into immunocompromised mice. These cells contain a mutation in the ATM gene, resulting in the expression of a truncated protein, which causes increased sensitivity to UVB and ionizing radiation compared to other melanoma cell lines. The HT-144 cells also express mutant B-Raf (V600E).

Source

This cell line was established in 1966 from a metastatic site (subcutaneous tissue) in a 29-year-old Caucasian male with malignant melanoma.

Inventors

- Jorgen Fogh, PhD, formerly at Sloan Kettering Institute, MSK
- Germaine Trempe, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. *Journal of the National Cancer Institute* 59: 221-226. PMID: [327080](#)
- Smith JD (1986) Human cytomegalovirus: demonstration of permissive epithelial cells and nonpermissive fibroblastic cells in a survey of human cell lines. *Journal of Virology* 60: 583-588. PMID: [3021992](#)
- Ramsay J et al. (1998) Radiosensitive melanoma cell line with mutation of the gene for ataxia telangiectasia. *British Journal of Cancer* 77: 11-14. PMID: [9459139](#)
- Chen B et al. (2012) BRAFV600E negatively regulates the AKT pathway in melanoma cell lines. *PLoS One* 7: e42598. PMID: [22880048](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: SK1980-544

Malme-3M: Human Melanoma Cell Line (ATCC Catalogue No. HTB-64)

Description

Malme-3M is a malignant human melanoma cell line that displays fibroblast-like morphology and grows in mixed culture (adherent- suspension). This cell line has been shown to be dependent upon microphthalmia-associated transcription factor (MITF) activity for growth and survival. Malme-3M cells form tumors when injected into immunocompromised mice. These cells express mutant B-Raf (V600E) and wildtype N-Ras.

Source

This cell line was established in 1975 from a metastatic site (lung) in a 43-year-old Caucasian male with metastatic melanoma.

Inventors

- Jorgen Fogh, PhD, formerly at Sloan Kettering Institute, MSK
- Germaine Trempe, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. *Journal of the National Cancer Institute* 59: 221-226. PMID: [327080](#)
- Xing F et al. (2012) Concurrent loss of the PTEN and RB1 tumor suppressors attenuates RAF dependence in melanomas harboring (V600E)BRAF. *Oncogene* 31: 446-457 (PubMed ID: [21725359](#))
- Ma J et al. (2013) HER2 as a Promising Target for Cytotoxicity T Cells in Human Melanoma Therapy. *PLoS One* 8: e73261. PMID: [24015299](#)

Comments

Malme-3, a normal skin fibroblast cell line, isolated from the same patient as the Malme-3M melanoma cell line, is also available for licensing.

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: SK2009-092

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-MEL-1: Human Melanoma Cell Line (ATCC Catalogue No. HTB-67)

Description

SK-MEL-1 is the first of a series of melanoma cell lines established from patient-derived tumor samples. This cell line is grown in suspension culture and expresses mutant B-Raf (V600E) and wildtype N-Ras.

This cell line is known to form tumors in immunocompromised mice.

Source

This cell line was established in 1966 from a metastatic site (thoracic lymph duct) in a 29-year-old Caucasian male with malignant melanoma.

Lead Inventor

- Herbert F. Oettgen, MD, formerly at Sloan Kettering Institute, MSK

Key References

- Oettgen HF et al. (1968) Suspension culture of a pigment-producing cell line derived from a human malignant melanoma. *Journal of the National Cancer Institute* 41: 827-843. PMID: [4879578](#)
- Fogh J et al. (1977) One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. *Journal of the National Cancer Institute* 59: 221-226. PMID: [327080](#)
- Xing F et al. (2012) Concurrent loss of the PTEN and RB1 tumor suppressors attenuates RAF dependence in melanomas harboring (V600E) BRAF. *Oncogene* 31(4):446-457. PMID: [21725359](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: [SK2004-052](#)

SK-MEL-2: Human Melanoma Cell Line (ATCC Catalogue No. HTB-68)

Description

SK-MEL-2 is one of a series of melanoma cell lines established from patient-derived tumor samples. This cell line expresses wildtype B-Raf and mutant N-Ras (Q61R). This cell line is known to form tumors in immunocompromised mice.

Source

This cell line was established in 1972 from a metastatic site on the thigh of a 60-year-old Caucasian male with malignant melanoma.

Inventors

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research
- Germain Trempe, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. *Journal of the National Cancer Institute* 59: 221-226. PMID: [327080](#)
- Xing F et al. (2012) Concurrent loss of the PTEN and RB1 tumor suppressors attenuates RAF dependence in melanomas harboring (V600E) BRAF. *Oncogene* 31(4):446-457. PubMed ID: [21725359](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: SK 779

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-MEL-3: Human Melanoma Cell Line (ATCC Catalogue No. HTB-69)

Description

SK-MEL-3 is one of a series of melanoma cell lines established from patient-derived tumor samples. This cell line is known to form tumors in immunocompromised mice.

Source

This cell line was established in 1972 from a metastatic site (lymph node) in a 42-year-old Caucasian female with malignant melanoma.

Inventors

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research
- Germain Trempe, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. *Journal of the National Cancer Institute* 59: 221-226. PMID: [327080](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: SK1980-523

SK-MEL-5: Human Melanoma Cell Line (ATCC Catalogue No. HTB-70)

Description

SK-MEL-5 is one of a series of melanoma cell lines established from patient-derived tumor samples. This cell line expresses mutant B-Raf (V600E) and wildtype N-Ras. This cell line is known to form tumors in immunocompromised mice.

Source

This cell line was established in 1974 from a metastatic site (axillary lymph node) in a 24-year-old Caucasian female with malignant melanoma.

Inventors

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research
- Toshitada Takahashi, MD, formerly at Sloan Kettering Institute, MSK

Key References

- Carey TE et al. (1976) Cell surface antigens of human malignant melanoma: mixed hemadsorption assays for humoral immunity to cultured autologous melanoma cells. *Proceedings of the National Academy of Sciences* 73: 3278-3282. PMID: [1067619](#)
- Xing F et al. (2012) Concurrent loss of the PTEN and RB1 tumor suppressors attenuates RAF dependence in melanomas harboring (V600E) BRAF. *Oncogene* 31(4):446-457. PMID: [21725359](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: SK1980-522

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-MEL-24: Human Melanoma Cell Line (ATCC Catalogue No. HTB-71)

Description

SK-MEL-24 is one of a series of melanoma cell lines established from patient-derived tumor samples. This cell line expresses wildtype B-Raf and wildtype N-Ras. This cell line is known to form tumors in immunocompromised mice.

Source

This cell line was established from a metastatic site (lymph node) in a 67-year-old Caucasian male with malignant melanoma.

Inventors

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research
- Toshitada Takahashi, MD, formerly at Sloan Kettering Institute, MSK

Key References

- Carey TE et al. (1976) Cell surface antigens of human malignant melanoma: mixed hemadsorption assays for humoral immunity to cultured autologous melanoma cells. *Proceedings of the National Academy of Sciences* 73: 3278-3282. PMID: [1067619](#)
- Xing F et al. (2012) Concurrent loss of the PTEN and RBI tumor suppressors attenuates RAF dependence in melanomas harboring (V600E) BRAF. *Oncogene* 31(4):446-457. PMID: [21725359](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRIM@mskcc.org.

MSK Tracking Code: SK2003-078

SK-MEL-26: Human Melanoma Cell Line

Description

SK-MEL-26 is one of a series of melanoma cell lines established from patient-derived tumor samples. This cell line expresses mutant B-Raf (V600E) and wildtype N-Ras. This cell line is known to form tumors in immunocompromised mice.

Source

This cell line was established in 1975 from a subcutaneous malignant melanoma on the right leg of a 54-year-old Caucasian female.

Inventors

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research
- Toshitada Takahashi, MD, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. *Journal of the National Cancer Institute* 59: 221-226. PMID: [327080](#)
- Gomi K et al. (1984) Antitumor effect of human recombinant interferon-beta against human melanomas transplanted into nude mice. *Journal of Pharmacobiodynamics* 7: 951-961. PMID: [6533284](#)
- Fujino M et al. (1999) Effects of protein kinase inhibitors on radiation-induced WAF1 accumulation in human cultured melanoma cells. *British Journal of Dermatology* 141: 652-657. PMID: [10583112](#)
- Xing F et al. (2012) Concurrent loss of the PTEN and RBI tumor suppressors attenuates RAF dependence in melanomas harboring (V600E) BRAF. *Oncogene* 31(4): 446-457. PMID: [21725359](#)

Licensing Information

MSK Tracking Code: SK1980-546

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-MEL-28: Human Melanoma Cell Line (ATCC Catalogue No. HTB-72)

Description

SK-MEL-28 is one of a series of melanoma cell lines established from patient-derived tumor samples. This cell line expresses mutant B-Raf (V600E) and wildtype N-Ras. This cell line is known to form tumors in immunocompromised mice.

Source

This cell line was established from the primary tumor on the skin of a 51-year-old male of unknown ethnicity.

Inventors

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research
- Toshitada Takahashi, MD, formerly at Sloan Kettering Institute, MSK

Key References

- Carey TE et al. (1976) Cell surface antigens of human malignant melanoma: mixed hemadsorption assays for humoral immunity to cultured autologous melanoma cells. *Proceedings of the National Academy of Sciences* 73: 3278-3282. PMID: [1067619](#)
- Xing F et al. (2012) Concurrent loss of the PTEN and RBI tumor suppressors attenuates RAF dependence in melanomas harboring (V600E) BRAF. *Oncogene* 31(4):446-457. PMID: [21725359](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: SK1980-524

SK-MEL-29: Human Melanoma Cell Line

Description

SK-MEL-29 is one of a series of melanoma cell lines established from patient-derived tumor samples. This cell line expresses mutant B-Raf (V600E) and wildtype N-Ras. This cell line is known to form tumors in immunocompromised mice.

Source

This cell line was established in 1975 from a recurrent melanoma at the apex of the left axilla of a 19-year-old Caucasian male.

Inventors

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research
- Toshitada Takahashi, MD, formerly at Sloan Kettering Institute, MSK

Key References

- Carey TE et al. (1976) Cell surface antigens of human malignant melanoma: mixed hemadsorption assays for humoral immunity to cultured autologous melanoma cells. *Proceedings of the National Academy of Sciences* 73: 3278-3282. PMID: [1067619](#)
- Lau YS et al. (2006) Malignant melanoma and bone resorption. *British Journal of Cancer* 94(10): 1496-1503. PMID: [16641914](#)
- Xing F et al. (2012) Concurrent loss of the PTEN and RBI tumor suppressors attenuates RAF dependence in melanomas harboring (V600E) BRAF. *Oncogene* 31(4): 446-457. PMID: [21725359](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

MSK Tracking Code: SK1980-525

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-MEL-30: Human Melanoma Cell Line

Description

SK-MEL-30 is one of a series of melanoma cell lines established from patient-derived tumor samples. This cell line expresses wildtype B-Raf and mutant N-Ras (Q61K). This cell line is known to form tumors in immunocompromised mice.

Source

This cell line was established in 1975 from a soft-tissue metastatic site (dermis) in a 66-year-old Caucasian male.

Inventors

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research
- Toshitada Takahashi, MD, formerly at Sloan Kettering Institute, MSK

Key References

- Carey TE et al. (1976) Cell surface antigens of human malignant melanoma: mixed hemadsorption assays for humoral immunity to cultured autologous melanoma cells. *Proceedings of the National Academy of Sciences* 73: 3278-3282. PMID: [1067619](#)
- Xing F et al. (2012) Concurrent loss of the PTEN and RB1 tumor suppressors attenuates RAF dependence in melanomas harboring (V600E) BRAF. *Oncogene* 31(4): 446-457. PMID: [21725359](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

MSK Tracking Code: SK1980-526

SK-MEL-31: Human Melanoma Cell Line (ATCC Catalogue No. HTB-73)

Description

SK-MEL-31 is one of a series of melanoma cell lines established from patient-derived tumor samples. This cell line expresses wildtype B-Raf and wildtype N-Ras. This cell line is known to form tumors in immunocompromised mice.

Source

This cell line was established from the tumor cells of a female, of unknown age and ethnicity, with malignant melanoma.

Inventors

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research
- Toshitada Takahashi, MD, formerly at Sloan Kettering Institute, MSK

Key References

- Carey TE et al. (1976) Cell surface antigens of human malignant melanoma: mixed hemadsorption assays for humoral immunity to cultured autologous melanoma cells. *Proceedings of the National Academy of Sciences* 73: 3278-3282. PMID: [1067619](#)
- Xing F et al. (2012) Concurrent loss of the PTEN and RB1 tumor suppressors attenuates RAF dependence in melanomas harboring (V600E) BRAF. *Oncogene* 31(4):446-457. PMID: [21725359](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Express License [here](#). After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed instructions about how to fill in this contract, see [here](#). In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. Please note: This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: SK1980-527

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



CELL LINES

Multiple Myeloma



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-MM-1: Human Multiple Myeloma Cell Line (aka SK-MM-01)

Description

SK-MM-1 is a multiple myeloma cell line that grows in suspension culture. These cells display plasmacytoid morphology and have a doubling time of approximately 32 hours. SK-MM-1 cells do not express the Epstein-Barr virus nuclear antigen. These cells express the pan-B-cell marker

BI and the late B-cell/plasma cell marker BL3, but do not express any T-lymphocyte, myeloid, or early B-lymphocyte markers. SK-MM-1 cells secrete kappa light chains, but do not secrete any heavy chains.

Source

This cell line was established in 1981 from immature plasma cells in the bone marrow of a 51-year-old male, of unknown ethnicity, with plasma cell leukemia.

Lead Inventor

- Alan N. Houghton, MD, Attending Physician, Department of Medicine, Memorial Hospital; and Member, Immunology Program, Sloan Kettering Institute, MSK

Key References

- Eton O et al. (1989) Establishment and characterization of two human myeloma cell lines secreting kappa light chains. *Leukemia* 3: 729-735. PMID: [2506399](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

MSK Tracking Code: SK 440

SK-MM-2: Human Multiple Myeloma Cell Line (aka SK-MM-02)

Description

SK-MM-2 is a multiple myeloma cell line that grows in suspension culture.

These cells display plasmacytoid morphology and have a doubling time of approximately 60 hours. SK-MM-2 cells do not express the Epstein-Barr virus nuclear antigen. These cells express the pan-B-cell marker BI and the late B-cell/plasma cell markers BL3, OKT10, and PCA-1, but do not express any T-lymphocyte, myeloid, or early

B-lymphocyte markers. These cells secrete kappa light chains, but do not secrete any heavy chains. In addition, SK-MM-2 cells also express elevated levels of cyclin D1 mRNA.

Source

This cell line was established in 1982, from a leukapheresis sample of peripheral blood, from a 54-year-old male, of unknown ethnicity, with plasma cell leukemia.

Lead Inventor

- Alan N. Houghton, MD, Attending Physician, Department of Medicine, Memorial Hospital; and Member, Immunology Program, Sloan Kettering Institute, MSK

Key References

- Eton O et al. (1989) Establishment and characterization of two human myeloma cell lines secreting kappa light chains. *Leukemia* 3: 729-735. PMID: [2506399](#)
- Sáez B et al. (2007) Simultaneous translocations of FGFR3/MMSET and CCND1 into two different IGH alleles in multiple myeloma: lack of concurrent activation of both proto-oncogenes. *Cancer Genetics and Cytogenetics* 175: 65-68 PMID: [17498561](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

MSK Tracking Code: SK1989-002

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



CELL LINES

Ovarian Cancer



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



Caov-3: Human Ovarian Cancer Cell Line (ATCC Catalogue No. HTB-75)

Description

The Caov-3 cell line is a primary ovarian cancer cell line with epithelial morphology. These cells form tightly packed colonies in adherent culture. All-trans retinoic acid has been shown to suppress the growth of Caov-3 ovarian carcinoma cells *in vitro*. These cells express the NB/70K, CA-125, Ba-2, and Ca-1 tumor-associated antigens. The Caov-3 cells harbor a nonsense mutation in the p53 gene, and have multiple copies of the ovarian cancer oncogene *PIK3CA*. They are sensitive to vinblastine, cisplatin, and adriamycin. These cells fail to grow in soft agar but are tumorigenic when injected into immunocompromised mice.

Source

This cell line was established from the primary tumor of a 54-year-old Caucasian female with adenocarcinoma of the ovary.

Lead Inventor

- Jorgen Fogh, PhD, formerly at Sloan Kettering Institute, MSK

Key References

- Buick RN et al. (1985) Comparative properties of five human ovarian adenocarcinoma cell lines. *Cancer Research* 45: 3668-3676. PMID: [4016745](#)
- Yaginuma Y et al. (1992) Abnormal structure and expression of the p53 gene in human ovarian carcinoma cell lines. *Cancer Research* 52: 4196-4199. PMID: [1638534](#)
- Shayesteh L et al. (1999) *PIK3CA* is implicated as an oncogene in ovarian cancer. *Nature Genetics* 21: 99-102. PMID: [9916799](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: SK2010-069

Caov-4: Human Ovarian Cancer Cell Line (ATCC Catalogue No. HTB-76)

Description

The Caov-4 cell line is an ovarian cancer cell line with epithelial morphology that grows in adherent culture. These cells harbor a loss-of-function mutation in the p53 gene and are sensitive to cisplatin.

Source

This cell line was established from a metastatic site (fallopian tube) in a 45-year-old Caucasian female with adenocarcinoma of the ovary.

Lead Inventor

- Jorgen Fogh, PhD, formerly at Sloan Kettering Institute, MSK

Key References

- Yaginuma Y et al. (1992) Abnormal structure and expression of the p53 gene in human ovarian carcinoma cell lines. *Cancer Research* 52: 4196-4199. PMID: [1638534](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: SK2010-070

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-OV-1: Human Ovarian Adenocarcinoma Cell Line (aka SK-OV-01)

Description

SK-OV-1 is a human ovarian cancer cell line.

Source

This cell line was established from an ovarian metastasis in a 65-year-old female with ovarian adenocarcinoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Fogh J., Trempe G.L. New human tumor cell lines. (In) Human tumor cells *in vitro*; Fogh J. (eds.); pp.115-159; Springer; New York (1975)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-OV-3: Human Ovarian Cancer Cell Line (ATCC Catalogue No. HTB-77)

Description

SK-OV-3 is a human ovarian cancer cell line with epithelial-like morphology. These cells are resistant to tumor necrosis factor and to other cytotoxic drugs such as diphtheria toxin, cisplatin, and adriamycin. The SK-OV-3 cell line forms colonies in soft agar, which serves as a surrogate assay for tumorigenicity. Intra-peritoneal injection of these cells into immunocompromised mice results in the growth of tumors resembling clear cell adenocarcinoma, within two to three months.

Source

This cell line was established in 1973 from the ascites of a 64-year-old Caucasian female with adenocarcinoma of the ovary.

Inventors

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research
- Germain Trempe, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. *Journal of the National Cancer Institute* 59: 221-226. PMID: [327080](#)
- Shaw TJ et al. (2004) Characterization of intraperitoneal, orthotopic, and metastatic xenograft models of human ovarian cancer. *Molecular Therapy* 10: 1032-1042. PMID: [15564135](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRIM@mskcc.org.

MSK Tracking Code: SK1980-528

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-OV-8: Human Ovarian Adenocarcinoma Cell Line (aka SK-OV-08)

Description

SK-OV-8 is a human ovarian cancer cell line.

Source

This cell line was established from an ovarian metastasis in a 54-year-old female with ovarian adenocarcinoma.

Lead Researcher/Research Laboratory

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Provencher D.M., Finstad C.L., Saigo P.E., Rubin S.C., Hoskins W.J., Federici M.G., Stockert E., Lloyd K.O., Lewis J.L. Jr. Comparison of antigen expression on fresh and cultured ascites cells and on solid tumors of patients with epithelial ovarian cancer. *Gynecol. Oncol.* 50:78-83(1993). PMID: [8349167](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

CELL LINES

Pancreatic Cancer



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



Capan-1: Human Pancreatic Adenocarcinoma Cell Line (ATCC Catalogue No. HTB-79)

Description

Capan-1 is a human pancreatic ductal adenocarcinoma cell line.

These cells grow in adherent tissue culture and display epithelial morphology. In culture, these cells are capable of invading through an extracellular matrix, such as Matrigel. The Capan-1 cells are resistant to 5-fluorouracil, reminiscent of the original tumor from which they were derived. They form poorly-differentiated tumors when injected into immunocompromised mice. These cells harbor a single base-pair deletion in the *BRCA2* allele, which results in the expression of a truncated and dysfunctional protein. In addition, they have an oncogenic mutation in K-Ras (G12V) and an inactivating mutation in p53. These cells express elevated levels of the Epidermal Growth Factor Receptor (EGFR) and do not express SMAD4 protein (i.e., SMAD4-null).

The Capan-1 cells are useful both as a xenograft model for pancreatic cancer and as a cell system to study the effects of *BRCA2*-deficiency.

Source

This cell line was established in 1974 from a metastatic site (liver) in a 40-year-old Caucasian male with pancreatic ductal adenocarcinoma.

Lead Inventor

- Jorgen Fogh, PhD, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. *Journal of the National Cancer Institute* 59: 221-226. PMID: [327080](#)
- Kyriazis AP et al. (1982) Human pancreatic adenocarcinoma line Capan-1 in tissue culture and the nude mouse: morphologic, biologic, and biochemical characteristics. *American Journal of Pathology* 106: 250-260. PMID: [6278935](#)
- Deer EL et al. (2010) Phenotype and genotype of pancreatic cancer cell lines. *Pancreas* 39: 425-435. PMID: [20418756](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: SK 923

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.

Capan-2: Human Pancreatic Adenocarcinoma Cell Line (ATCC Catalogue No. HTB-80)

Description

Capan-2 is a human pancreatic ductal adenocarcinoma cell line. These cells grow in adherent tissue culture and display epithelial morphology. They form well-differentiated tumors when injected into immunocompromised mice and are used as a xenograft model for pancreatic cancer. The Capan-2 cells express mutant K-Ras (G12V) and elevated levels of the Epidermal Growth Factor Receptor (EGFR). In addition, they express wildtype p53 and normal levels of SMAD4 protein.

Source

This cell line was established in 1975 from the primary tumor of a 56-year-old Caucasian male with pancreatic ductal adenocarcinoma.

Inventors

- Jorgen Fogh, PhD, formerly at Sloan Kettering Institute, MSK
- James D. Loveless, formerly at Sloan Kettering Institute, MSK

Key References

- Kyriazis AA et al. (1986) Morphological, biological, biochemical, and karyotypic characteristics of human pancreatic ductal adenocarcinoma Capan-2 in tissue culture and the nude mouse. *Cancer Research* 46: 5810-5815. PMID: [3019537](#)
- Deer EL et al. (2010) Phenotype and genotype of pancreatic cancer cell lines. *Pancreas* 39: 425-435. PMID: [20418756](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: SK2000-049



CELL LINES

Renal Cancer



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



Caki-1: Human Renal Cancer Cell Line (ATCC Catalogue No. HTB-46)

Description

Caki-1 is a human clear cell renal cell carcinoma (ccRCC) line that displays epithelial morphology and grows in adherent culture. When grown on transwell filters, these cells form a polarized monolayer with microvilli on the apical surface and display characteristic features of the proximal tubule epithelium. In addition, the Caki-1 cells are also a useful model to study renal cancer. They are more sensitive to 5-fluorouracil and sorafenib (multi-kinase inhibitor of VEGFRs 1-3, PDGFR-b and Raf-1) than the Caki-2 cells. The Caki-1 cells express wildtype von Hippel-Lindau (VHL) tumor-suppressor protein and are known to form tumors in immunocompromised mice.

Source

This cell line was established in 1971 from a metastatic site (skin) in a 49-year-old Caucasian male with clear cell carcinoma of the kidney.

Inventors

- Jorgen Fogh, PhD, formerly at Sloan Kettering Institute, MSK
- Germain Trempe, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. *Journal of the National Cancer Institute* 59: 221-226. PMID: [327080](#)
- Glube N et al. (2007) Caki-1 cells represent an *in vitro* model system for studying the human proximal tubule epithelium. *Experimental Nephrology* 107: e47–e56. PMID: [17804913](#)
- Miyake M et al. (2012) 5-fluorouracil enhances the antitumor effect of sorafenib and sunitinib in a xenograft model of human renal cell carcinoma. *Oncology Letters* 3: 1195–1202. PMID: [22783417](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: SK1980-534

Caki-2: Human Renal Cancer Cell Line (ATCC Catalogue No. HTB-47)

Description

Caki-2 is a human clear cell renal cell carcinoma (ccRCC) line that displays epithelial morphology and grows in adherent culture. These cells are a useful preclinical model to study renal cancer. They are relatively less sensitive to 5-fluorouracil and sorafenib (multi-kinase inhibitor of VEGFRs 1-3, PDGFR-b, and Raf-1) compared to Caki-1 cells. The Caki-2 cells have a loss-of-function mutation in the von Hippel-Lindau (VHL) tumor-suppressor protein and are known to form tumors in immunocompromised mice.

Source

This cell line was established in 1971 from the primary tumor of a 69-year-old Caucasian male with clear cell carcinoma of the kidney.

Inventors

- Jorgen Fogh, PhD, formerly at Sloan Kettering Institute, MSK
- Germain Trempe, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. *Journal of the National Cancer Institute* 59: 221-226. PMID: [327080](#)
- Miyake M et al. (2012) 5-fluorouracil enhances the antitumor effect of sorafenib and sunitinib in a xenograft model of human renal cell carcinoma. *Oncology Letters* 3: 1195–1202. PMID: [22783417](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRTM@mskcc.org.

MSK Tracking Code: SK2010-068

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-1: Human Renal Carcinoma Cell Line, Primary (aka SK-RC-01)

Description

SK-RC-1 is a stage II primary renal carcinoma cell line that grows in nude mice and has a doubling time of 42 hours.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 41-year-old male, of unknown ethnicity, with clear cell renal cell carcinoma derived from perinodal adipose tissue.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)
- Houghton A et al. (1983) Detection of cell surface and intracellular antigens by human monoclonal antibodies. Hybrid cell lines derived from lymphocytes of patients with malignant melanoma. *The journal of experimental medicine*, 158(1), 53-65. PMID: [6864164](#)
- Mattes M et al. (1984) Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proceedings of the National Academy of Sciences of the United States of America*, 81(2), 568-572. PMID: [6582512](#)

- Ueda R et al. (1979) Cell surface antigens of human renal cancer defined by autologous typing. *The journal of experimental medicine*, 150(3), 564-579. PMID: [479762](#)
- Ueda R. et al. (1981) Cell surface antigens of human renal cancer defined by mouse monoclonal antibodies: identification of tissue-specific kidney glycoproteins. *Proceedings of the National Academy of Sciences of the United States of America*, 78(8), 5122-5126. PMID: [6946460](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_4017

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-2: Human Renal Adenocarcinoma Cell Line, Primary (aka SK-RC-O2)

Description

SK-RC-2 is a stage IV primary renal adenocarcinoma cell line derived from the kidney that grows in nude mice and has a doubling time of 60 hours.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 59-year-old male of unknown ethnicity.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)
- Houghton A et al. (1983) Detection of cell surface and intracellular antigens by human monoclonal antibodies. Hybrid cell lines derived from lymphocytes of patients with malignant melanoma. *The journal of experimental medicine*, 158(1), 53-65. PMID: [6864164](#)
- Mattes M et al. (1984) Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proceedings of the National Academy of Sciences of the United States of America*, 81(2), 568-572. PMID: [6582512](#)
- Pollack M et al. (1981) HLA-A, B, C and DR alloantigen expression on forty-six cultured human tumor cell lines. *Journey of the National Cancer Institute*, 66(6), 1003-1012. PMID: [7017212](#)

- Ueda R et al. (1979) Cell surface antigens of human renal cancer defined by autologous typing. *The journal of experimental medicine*, 150(3), 564-579. PMID: [479762](#)
- Ueda R. et al. (1981) Cell surface antigens of human renal cancer defined by mouse monoclonal antibodies: identification of tissue-specific kidney glycoproteins. *Proceedings of the National Academy of Sciences of the United States of America*, 78(8), 5122-5126. PMID: [6946460](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6169

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-4: Human Renal Cancer Cell Line, Primary (aka SK-RC-04)

Description

SK-RC-4 is a stage II primary renal cancer cell line.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 48-year-old male, of unknown ethnicity, with renal cell carcinoma derived from the humerus bone.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)
- Mattes M et al. (1984) Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proceedings of the National Academy of Sciences of the United States of America*, 81(2), 568-572. PMID: [6582512](#)
- Ueda R et al. (1979) Cell surface antigens of human renal cancer defined by autologous typing. *The journal of experimental medicine*, 150(3), 564-579. PMID: [479762](#)
- Ueda R. et al. (1981) Cell surface antigens of human renal cancer defined by mouse monoclonal antibodies: identification of tissue-specific kidney glycoproteins. *Proceedings of the National Academy of Sciences of the United States of America*, 78(8), 5122-5126. PMID: [6946460](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6171

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-6: Human Renal Adenocarcinoma Cell Line, Primary (aka SK-RC-06)

Description

SK-RC-6 is stage II primary renal adenocarcinoma cell line that grows in both nude mice and soft agar and has a doubling time of 60 hours.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 72-year-old male, of unknown ethnicity, with renal cell carcinoma derived from the kidney.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)
- Houghton A et al. (1983) Detection of cell surface and intracellular antigens by human monoclonal antibodies. Hybrid cell lines derived from lymphocytes of patients with malignant melanoma. *The journal of experimental medicine*, 158(1), 53-65. PMID: [6864164](#)
- Knuth A et al. (1989) Cytolytic T-cell clones against an autologous human melanoma: specificity study and definition of three antigens by immunoselection. *Proceedings of the National Academy of Sciences of the United States of America*, 86(8), 2904-2808. PMID: [2784858](#)

- Mattes M et al. (1984) Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proceedings of the National Academy of Sciences of the United States of America*, 81(2), 568-572. PMID: [6582512](#)
- Ueda R et al. (1979) Cell surface antigens of human renal cancer defined by autologous typing. *The journal of experimental medicine*, 150(3), 564-579. PMID: [479762](#)
- Ueda R. et al. (1981) Cell surface antigens of human renal cancer defined by mouse monoclonal antibodies: identification of tissue-specific kidney glycoproteins. *Proceedings of the National Academy of Sciences of the United States of America*, 78(8), 5122-5126. PMID: [6946460](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_4023

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-7: Human Renal Clear Cell Carcinoma Cell Line, Primary (aka SK-RC-07)

Description

SK-RC-7 is a stage II primary clear cell renal cancer cell line.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 63-year-old male, of unknown ethnicity, with clear cell renal cell carcinoma derived from the kidney.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Brodaczewska K et al. (2016) Choosing the right cell line for renal cell cancer research. *Molecular cancer*, 15(1), 83. PMID: [27993170](#)
- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)
- Knuth A et al. (1989) Cytolytic T-cell clones against an autologous human melanoma: specificity study and definition of three antigens by immunoselection. *Proceedings of the National Academy of Sciences of the United States of America*, 86(8), 2904-2808. PMID: [2784858](#)
- Mattes M et al. (1984) Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proceedings of the National Academy of Sciences of the United States of America*, 81(2), 568-572. PMID: [6582512](#)

- Pollack M et al. (1981) HLA-A, B, C and DR alloantigen expression on forty-six cultured human tumor cell lines. *Journey of the National Cancer Institute*, 66(6), 1003-1012. PMID: [7017212](#)
- Ueda R et al. (1979) Cell surface antigens of human renal cancer defined by autologous typing. *The journal of experimental medicine*, 150(3), 564-579. PMID: [479762](#)
- Ueda R. et al. (1981) Cell surface antigens of human renal cancer defined by mouse monoclonal antibodies: identification of tissue-specific kidney glycoproteins. *Proceedings of the National Academy of Sciences of the United States of America*, 78(8), 5122-5126. PMID: [6946460](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_4024

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-8: Human Renal Clear Cell Carcinoma Cell Line, Primary (aka SK-RC-08)

Description

SK-RC-8 is a stage IV primary renal clear cell carcinoma cell line.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 47-year-old male, of unknown ethnicity, with clear cell renal carcinoma derived from the adrenal gland.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)
- Gnarra J et al. (1994) Mutations of the VHL tumour suppressor gene in renal carcinoma. *Nature genetics*, 7(1), 85-90. PMID: [7915601](#)
- Houghton A et al. (1983) Detection of cell surface and intracellular antigens by human monoclonal antibodies. Hybrid cell lines derived from lymphocytes of patients with malignant melanoma. *The journal of experimental medicine*, 158(1), 53-65. PMID: [6864164](#)
- Mattes M et al. (1984) Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proceedings of the National Academy of Sciences of the United States of America*, 81(2), 568-572. PMID: [6582512](#)

- Ueda R et al. (1979) Cell surface antigens of human renal cancer defined by autologous typing. *The journal of experimental medicine*, 150(3), 564-579. PMID: [479762](#)
- Ueda R. et al. (1981) Cell surface antigens of human renal cancer defined by mouse monoclonal antibodies: identification of tissue-specific kidney glycoproteins. *Proceedings of the National Academy of Sciences of the United States of America*, 78(8), 5122-5126. PMID: [6946460](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6173

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-9: Human Renal Carcinoma Cell Line, Metastatic (aka SK-RC-09)

Description

SK-RC-9 is a stage IV metastatic renal carcinoma cell line derived from the lung, which grows in soft agar.

This cell line is part of a collection of renal cell carcinoma (RCC) cell lines derived from metastatic sites of patients who underwent surgery. For the complete panel, see SK-RC-(M): Metastatic Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 56-year-old male, of unknown ethnicity, with renal cell carcinoma derived from the brain.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Brodaczewska K et al. (2016) Choosing the right cell line for renal cell cancer research. *Molecular cancer*, 15(1), 83. PMID: [27993170](#)
- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)
- Gnarra J et al. (1994) Mutations of the VHL tumour suppressor gene in renal carcinoma. *Nature genetics*, 7(1), 85-90. PMID: [7915601](#)
- Houghton A et al. (1983) Detection of cell surface and intracellular antigens by human monoclonal antibodies. Hybrid cell lines derived from lymphocytes of patients with malignant melanoma. *The journal*

of experimental medicine, 158(1), 53-65. PMID: [6864164](#)

- Mattes M et al. (1984) Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proceedings of the National Academy of Sciences of the United States of America*, 81(2), 568-572. PMID: [6582512](#)
- Ueda R et al. (1979) Cell surface antigens of human renal cancer defined by autologous typing. *The journal of experimental medicine*, 150(3), 564-579. PMID: [479762](#)
- Ueda R. et al. (1981) Cell surface antigens of human renal cancer defined by mouse monoclonal antibodies: identification of tissue-specific kidney glycoproteins. *Proceedings of the National Academy of Sciences of the United States of America*, 78(8), 5122-5126. PMID: [6946460](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6174

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-10: Human Renal Cancer Cell Line, Primary

Description

SK-RC-10 is a primary renal cancer cell line.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 63-year-old male of unknown ethnicity, with renal cell carcinoma derived from the kidney.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Brodaczevska K et al. (2016) Choosing the right cell line for renal cell cancer research. *Molecular cancer*, 15(1), 83. PMID: [27993170](#)
- Houghton A et al. (1983) Detection of cell surface and intracellular antigens by human monoclonal antibodies. Hybrid cell lines derived from lymphocytes of patients with malignant melanoma. *The journal of experimental medicine*, 158(1), 53-65. PMID: [6864164](#)
- Mattes M et al. (1984) Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proceedings of the National Academy of Sciences of the United States of America*, 81(2), 568-572. PMID: [6582512](#)
- Ueda R et al. (1979) Cell surface antigens of human renal cancer defined by autologous typing. *The journal of experimental medicine*, 150(3), 564-579. PMID: [479762](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6175

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-11: Human Renal Cancer Cell Line, Primary

Description

SK-RC-11 is a primary renal cell line.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 60-year-old male, of unknown ethnicity, with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Knuth A et al. (1989) Cytolytic T-cell clones against an autologous human melanoma: specificity study and definition of three antigens by immunoselection. *Proceedings of the National Academy of Sciences of the United States of America*, 86(8), 2904-2808. PMID: [2784858](#)
- Houghton A et al. (1983) Detection of cell surface and intracellular antigens by human monoclonal antibodies. Hybrid cell lines derived from lymphocytes of patients with malignant melanoma. *The journal of experimental medicine*, 158(1), 53-65. PMID: [6864164](#)
- Mayet W et al. (1991) A human renal cancer line as a new antigen source for the detection of antibodies to cytoplasmic and nuclear antigens in sera of patients with Wegener's granulomatosis. *Journal of immunological methods*, 143(1), 57-68. PMID: [1717605](#)

- Ueda R et al. (1979) Cell surface antigens of human renal cancer defined by autologous typing. *The journal of experimental medicine*, 150(3), 564-579. PMID: [479762](#)
- Ueda R. et al. (1981) Cell surface antigens of human renal cancer defined by mouse monoclonal antibodies: identification of tissue-specific kidney glycoproteins. *Proceedings of the National Academy of Sciences of the United States of America*, 78(8), 5122-5126. PMID: [6946460](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6176

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-12: Human Renal Clear Cell, Cortical Carcinoma Cell Line, Primary

Description

SK-RC-12 is a primary renal clear cell cortical carcinoma cell line.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 68-year-old male, of unknown ethnicity, with renal cell carcinoma derived from the adrenal gland.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)
- Mattes M et al. (1984) Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proceedings of the National Academy of Sciences of the United States of America*, 81(2), 568-572. PMID: [6582512](#)
- Ueda R et al. (1979) Cell surface antigens of human renal cancer defined by autologous typing. *The journal of experimental medicine*, 150(3), 564-579. PMID: [479762](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6177

SK-RC-13: Human Renal Cancer Cell Line, Metastatic

Description

SK-RC-13 is a metastatic renal cancer cell line derived from the brain which grows in nude mice.

This cell line is part of a collection of renal cell carcinoma (RCC) cell lines derived from metastatic sites of patients who underwent surgery. For the complete panel, see SK-RC-(M): Metastatic Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 63-year-old male of unknown ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Brodaczewska K et al. (2016) Choosing the right cell line for renal cell cancer research. *Molecular cancer*, 15(1), 83. PMID: [27993170](#)
- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)
- Ueda R et al. (1979) Cell surface antigens of human renal cancer defined by autologous typing. *The journal of experimental medicine*, 150(3), 564-579. PMID: [479762](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6178

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-14: Human Renal Cancer Cell Line, Primary

Description

SK-RC-14 is a primary renal cancer cell line.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 63-year-old male of unknown ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6179

SK-RC-15: Human Renal Clear Cell, Cortical Carcinoma Cell Line, Primary

Description

SK-RC-15 is a primary renal clear cell adenocarcinoma cell line that grows in nude mice and was derived from the kidney.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 68-year-old male of unknown ethnicity with clear cell renal carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6180

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-16: Human Renal Cancer Cell Line, Primary

Description

SK-RC-16 is a primary renal cancer cell line.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 56-year-old male of unknown ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Mattes M et al. (1984) Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proceedings of the National Academy of Sciences of the United States of America*, 81(2), 568-572. PMID: [6582512](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_GS24

SK-RC-17: Human Renal Cancer Cell Line, Metastatic

Description

SK-RC-17 is a metastatic renal cancer cell line derived from the soft tissue of the abdominal wall which grows in nude mice.

This cell line is part of a collection of renal cell carcinoma (RCC) cell lines derived from metastatic sites of patients who underwent surgery. For the complete panel, see SK-RC-(M): Metastatic Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a male of unknown age and ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Brodaczewska K et al. (2016) Choosing the right cell line for renal cell cancer research. *Molecular cancer*, 15(1), 83. PMID: [27993170](#)
- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)
- Mattes M et al. (1984) Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proceedings of the National Academy of Sciences of the United States of America*, 81(2), 568-572. PMID: [6582512](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_4018

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-18: Human Renal Clear Cell Carcinoma Cell Line, Metastatic

Description

SK-RC-18 is a metastatic renal clear cell carcinoma cell line derived from the cervical lymph node which grows in both nude mice and soft agar.

This cell line is part of a collection of renal cell carcinoma (RCC) cell lines derived from metastatic sites of patients who underwent surgery. For the complete panel, see SK-RC-(M): Metastatic Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 32-year-old male of unknown ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Brodaczewska K et al. (2016) Choosing the right cell line for renal cell cancer research. *Molecular cancer*, 15(1), 83. PMID: [27993170](#)
- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)
- Knuth A et al. (1989) Cytolytic T-cell clones against an autologous human melanoma: specificity study and definition of three antigens by immunoselection. *Proceedings of the National Academy of Sciences of the United States of America*, 86(8), 2904-2808. PMID: [2784858](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

CellSaurus code: RRID: CVCL_6181

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.

SK-RC-19: Human Renal Cancer Cell Line, Primary

Description

SK-RC-19 is a primary renal cancer cell line.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 42-year-old male of unknown ethnicity.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

SK-RC-20: Human Renal Cancer Cell Line, Primary

Description

SK-RC-20 is a primary renal cancer cell line with a doubling time of 55 hours.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 46-year-old male of unknown ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Cowley G et al. (2014) Parallel genome-scale loss of function screens in 216 cancer cell lines for the identification of context-specific genetic dependencies. *Scientific data*, 1, 140035. PMID: [25984343](#)
- Ghandi M et al. (2019) Next-generation characterization of the Cancer Cell Line Encyclopedia. *Nature*, 569(7757), 503-508. PMID: [31068700](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_V605

SK-RC-21: Human Renal Cancer Cell Line, Metastatic

Description

SK-RC-21 is a metastatic renal cancer cell line derived from the lumbar vertebra which grows in soft agar and has a doubling time of 38 hours.

This cell line is part of a collection of renal cell carcinoma (RCC) cell lines derived from metastatic sites of patients who underwent surgery. For the complete panel, see SK-RC-(M): Metastatic Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 59-year-old male of unknown ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Brodaczewska K et al. (2016) Choosing the right cell line for renal cell cancer research. *Molecular cancer*, 15(1), 83. PMID: [27993170](#)
- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)
- Ueda R. et al. (1981) Cell surface antigens of human renal cancer defined by mouse monoclonal antibodies: identification of tissue-specific kidney glycoproteins. *Proceedings of the National Academy of Sciences of the United States of America*, 78(8), 5122-5126. PMID: [6946460](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6182

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-22: Human Renal Cancer Cell Line, Primary

Description

SK-RC-22 is a primary renal cancer cell line.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 78-year-old male of unknown ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_VR18

SK-RC-24: Human Renal Cancer Cell Line, Primary

Description

SK-RC-24 is a primary renal cancer cell line.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 37-year-old male of unknown ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_VR19

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-25: Human Renal Cancer Cell Line, Primary

Description

SK-RC-25 is a primary renal cancer cell line.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a female of unknown age and ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_VR20

SK-RC-26: Human Renal Cancer Cell Line, Primary

Description

SK-RC-26 is a primary renal cancer cell line.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 58-year-male of unknown ethnicity.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-26a: Human Renal Cancer Cell Line, Metastatic

Description

SK-RC-26a is a metastatic renal cancer cell line derived from the lung.

This cell line is part of a collection of renal cell carcinoma (RCC) cell lines derived from metastatic sites of patients who underwent surgery. For the complete panel, see SK-RC-(M): Metastatic Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 58-year-old male of unknown ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Brodaczevska K et al. (2016) Choosing the right cell line for renal cell cancer research. *Molecular cancer*, 15(1), 83. PMID: [27993170](#)
- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6183

SK-RC-26b: Human Renal Cancer Cell Line, Metastatic

Description

SK-RC-26b is a metastatic renal cancer cell line derived from the lymph node.

This cell line is part of a collection of renal cell carcinoma (RCC) cell lines derived from metastatic sites of patients who underwent surgery. For the complete panel, see SK-RC-(M): Metastatic Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 58-year-old male of unknown ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Brodaczevska K et al. (2016) Choosing the right cell line for renal cell cancer research. *Molecular cancer*, 15(1), 83. PMID: [27993170](#)
- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)
- Gurova K et al. (2004) p53 pathway in renal cell carcinoma is repressed by a dominant mechanism. *Cancer research*, 64(6), 1951-1958. PMID: [15026329](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_3120

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-28: Human Renal Clear Cell Adenocarcinoma Cell Line, Primary

Description

SK-RC-28 is a primary renal clear cell adenocarcinoma cell line derived from the kidney and grows in soft agar.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 51-year-old female of unknown ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)
- Gnarra J et al. (1994) Mutations of the VHL tumour suppressor gene in renal carcinoma. *Nature genetics*, 7(1), 85-90. PMID: [7915601](#)
- Houghton A et al. (1983) Detection of cell surface and intracellular antigens by human monoclonal antibodies. Hybrid cell lines derived from lymphocytes of patients with malignant melanoma. *The journal of experimental medicine*, 158(1), 53-65. PMID: [6864164](#)
- Mattes M et al. (1984) Cell surface antigens of human ovarian and endometrial carcinoma defined by mouse monoclonal antibodies. *Proceedings of the National Academy of Sciences of the United States of America*, 81(2), 568-572. PMID: [6582512](#)

- Ueda R. et al. (1981) Cell surface antigens of human renal cancer defined by mouse monoclonal antibodies: identification of tissue-specific kidney glycoproteins. *Proceedings of the National Academy of Sciences of the United States of America*, 78(8), 5122-5126. PMID: [6946460](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6184

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-30: Human Renal Cancer Cell Line, Primary

Description

SK-RC-30 is a primary renal cancer cell line.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 74-year-old female of unknown ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6185

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-31: Human Renal Cancer Cell Line, Metastatic

Description

SK-RC-31 is a metastatic renal cancer cell line derived from the lung which grows in both nude mice and soft agar.

This cell line is part of a collection of renal cell carcinoma (RCC) cell lines derived from metastatic sites of patients who underwent surgery. For the complete panel, see SK-RC-(M): Metastatic Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a male of unknown age and ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Brodaczevska K et al. (2016) Choosing the right cell line for renal cell cancer research. *Molecular cancer*, 15(1), 83. PMID: [27993170](#)
- Cowley G et al. (2014) Parallel genome-scale loss of function screens in 216 cancer cell lines for the identification of context-specific genetic dependencies. *Scientific data*, 1, 140035. PMID: [25984343](#)
- Dutil J et al. (2019) An Interactive Resource to Probe Genetic Diversity and Estimated Ancestry in Cancer Cell Lines. *Cancer research*, 79(7), 1263-1273. PMID: [30894373](#)
- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)
- Ghandi M et al. (2019) Next-generation characterization of the Cancer Cell Line Encyclopedia. *Nature*, 569(7757), 503-508. PMID: [31068700](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6186

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-34: Human Renal Cancer Cell Line, Primary

Description

SK-RC-34 is a primary renal cancer cell line.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 66-year-old male of unknown ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_VR21

SK-RC-36: Human Renal Cancer Cell Line, Metastatic

Description

SK-RC-36 is a metastatic renal cancer cell line derived from the hypodermis of the femoral neck.

This cell line is part of a collection of renal cell carcinoma (RCC) cell lines derived from metastatic sites of patients who underwent surgery. For the complete panel, see SK-RC-(M): Metastatic Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 65-year-old male of unknown ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_VR22

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-37: Human Renal Cancer Cell Line, Primary

Description

SK-RC-37 is a primary renal cancer cell line which grows in nude mice.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a male of unknown age and ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6188

SK-RC-38: Human Renal Clear Cell Carcinoma Cell Line, Metastatic

Description

SK-RC-38 is a metastatic renal clear cell cancer derived from the lung which grows in both nude mice and soft agar.

This cell line is part of a collection of renal cell carcinoma (RCC) cell lines derived from metastatic sites of patients who underwent surgery. For the complete panel, see SK-RC-(M): Metastatic Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a male of unknown age and ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Brodaczewska K et al. (2016) Choosing the right cell line for renal cell cancer research. *Molecular cancer*, 15(1), 83. PMID: [27993170](#)
- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)
- Houghton A et al. (1983) Detection of cell surface and intracellular antigens by human monoclonal antibodies. Hybrid cell lines derived from lymphocytes of patients with malignant melanoma. *The journal of experimental medicine*, 158(1), 53-65. PMID: [6864164](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6189

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-45: Human Renal Cancer Cell Line, Metastatic

Description

SK-RC-45 is a metastatic renal cancer cell line derived from the adrenal gland which grows in both nude mice and soft agar and has a doubling time of 48 hours.

This cell line is part of a collection of renal cell carcinoma (RCC) cell lines derived from metastatic sites of patients who underwent surgery. For the complete panel, see SK-RC-(M): Metastatic Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 48-year-old male of unknown ethnicity with clear cell renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Brodaczevska K et al. (2016) Choosing the right cell line for renal cell cancer research. *Molecular cancer*, 15(1), 83. PMID: [27993170](#)
- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)
- Gurova K et al. (2004) p53 pathway in renal cell carcinoma is repressed by a dominant mechanism. *Cancer research*, 64(6), 1951-1958. PMID: [15026329](#)
- Kudo D et al. (2003) Gangliosides expressed by the renal cell carcinoma cell line SK-RC-45 are involved in tumor-induced apoptosis of T cells. *Cancer research*, 63(7), 1676-1683. PMID: [12670922](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_4016

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-48: Human Renal Cancer Cell Line, Primary

Description

SK-RC-48 is a primary renal cancer cell line which grows in nude mice.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 73-year-old male of unknown ethnicity with clear cell renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)
- Gnarra J et al. (1994) Mutations of the VHL tumour suppressor gene in renal carcinoma. *Nature genetics*, 7(1), 85-90. PMID: [7915601](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6195

SK-RC-52: Human Renal Cancer Cell Line, Metastatic

Description

SK-RC-52 is a metastatic renal cancer cell line derived from the mediastinum which grows in both nude mice and soft agar and has a doubling time of 36 hours.

This cell line is part of a collection of renal cell carcinoma (RCC) cell lines derived from metastatic sites of patients who underwent surgery. For the complete panel, see SK-RC-(M): Metastatic Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 61-year-old female of unknown ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Brodaczewska K et al. (2016) Choosing the right cell line for renal cell cancer research. *Molecular cancer*, 15(1), 83. PMID: [27993170](#)
- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6198

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-54: Human Renal Adenocarcinoma Cell Line, Metastatic

Description

SK-RC-54 is a metastatic renal adenocarcinoma cell line derived from the lung.

This cell line is part of a collection of renal cell carcinoma (RCC) cell lines derived from metastatic sites of patients who underwent surgery. For the complete panel, see SK-RC-(M): Metastatic Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 64-year-old male of unknown ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Brodaczewska K et al. (2016) Choosing the right cell line for renal cell cancer research. *Molecular cancer*, 15(1), 83. PMID: [27993170](#)
- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)
- Gurova K et al. (2004) p53 pathway in renal cell carcinoma is repressed by a dominant mechanism. *Cancer research*, 64(6), 1951-1958. PMID: [15026329](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6200

SK-RC-56: Human Renal Cancer Cell Line, Primary

Description

SK-RC-56 is a primary renal cancer cell line which grows in both nude mice and soft agar and has a doubling time of 48 hours.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 66-year-old male of unknown ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), 5531-5536. PMID: [2386958](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6203

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-61: Human Renal Cancer Cell Line, Primary

Description

SK-RC-61 is a primary renal cancer cell line which grows in both nude mice and soft agar and has a doubling time of 48 hours.

This cell line is from a collection of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery. For the complete panel, see SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio.

Source

This cell line was established from a 53-year-old male of unknown ethnicity with renal cell carcinoma.

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer research*, 50(17), [5531-5536](#). PMID: 2386958
- Gnarr J et al. (1994) Mutations of the VHL tumour suppressor gene in renal carcinoma. *Nature genetics*, 7(1), 85-90. PMID: [7915601](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Cellosaurus code: RRID: CVCL_6208

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-RC-(M): Metastatic Human Renal Cell Carcinoma (RCC) Cell Line Portfolio

Description

This is a portfolio of renal cell carcinoma (RCC) cell lines derived from metastatic sites of patients who underwent surgery.

See chart for additional information.

Source

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK.

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Ueda R et al. (1979) Cell surface antigens of human renal cancer defined by autologous typing. *Journal of Experimental Medicine* 150: 564-579. PMID: [479762](#)
- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer Research* 50: 5531-5536. PMID: [2386958](#)
- Sjölund J et al. (2008) Suppression of renal cell carcinoma growth by inhibition of Notch signaling *in vitro* and *in vivo*. *Journal of Clinical Investigation* 118: 217-228. PMID: [18079963](#)

Comments

Cell lines may be licensed individually or in any preferred combination.

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Metastatic Human Renal Cell Carcinoma Cell Line Portfolio

Cell Line	Metastatic Site	Growth in Nude Mice	Growth in Soft Agar
SK-RC-9 (aka O9)	Lung	x	✓
SK-RC-13*	Brain	✓	X
SK-RC-17	Soft tissue, abdominal wall	✓	n.d.
SK-RC-18	Lymph node	✓	✓
SK-RC-21	Bone, lumbar vertebra	x	✓
SK-RC-26a*	Lung	n.d.	n.d.
SK-RC-26b*	Lymph node	n.d.	n.d.
SK-RC-31	Lung	✓	✓
SK-RC-36	Soft tissue, femoral neck	n.a.	n.a.
SK-RC-38	Lung	✓	✓
SK-RC-45*	Adrenal gland	✓	✓
SK-RC-52	Mediastinum	✓	✓
SK-RC-54	Lung	n.d.	n.d.

*A cell line established from the primary tumor of the same patient is available. Please contact us for more details.

Key: x = No; ✓ = Yes; n.d. = Not Determined; n.a. = Information not available

Adapted from: Ebert T et al. *Cancer Research* 50: 5531-5536 (1990)



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.

SK-RC-(P): Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio

Description

This is a portfolio of renal cell carcinoma (RCC) cell lines derived from the primary tumors of patients who underwent surgery.

Source

All cell lines were established in Dr. Lloyd Old's laboratory, from patients undergoing nephrectomy at Memorial Hospital, MSK, between the years 1972 and 1987. Fresh surgical specimens were obtained from Tumor Procurement Services, Department of Surgical Pathology, Memorial Hospital, MSK

Lead Inventor

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research, and members of the Old Laboratory

Key References

- Ueda R et al. (1979) Cell surface antigens of human renal cancer defined by autologous typing. *Journal of Experimental Medicine* 150: 564-579. PMID: [479762](#)
- Ebert T et al. (1990) Establishment and characterization of human renal cancer and normal kidney cell lines. *Cancer Research* 50: 5531-5536. PMID: [2386958](#)
- Sjölund J et al. (2008) Suppression of renal cell carcinoma growth by inhibition of Notch signaling *in vitro* and *in vivo*. *Journal of Clinical Investigation* 118: 217-228. PMID: [18079963](#)

Comments

Cell lines may be licensed -individually or in any preferred combination.

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Primary Human Renal Cell Carcinoma (RCC) Cell Line Portfolio

Cell Line	Growth in Nude Mice	Growth in Soft Agar
SK-RC-1 (aka 01)	√	x
SK-RC-2 (aka 02)	√	x
SK-RC-4 (aka 04)	x	n.d.
SK-RC-6 (aka 06)	√	√
SK-RC-7 (aka 07)	x	x
SK-RC-8 (aka 08)	x	n.d.
SK-RC-10*	n.d.	n.d.
SK-RC-11	n.a.	n.a.
SK-RC-12	x	n.d.
SK-RC-14	n.a.	n.a.
SK-RC-15	√	n.d.
SK-RC-16	n.a.	n.a.
SK-RC-19	n.a.	n.a.
SK-RC-20	n.a.	n.a.
SK-RC-22	n.a.	n.a.
SK-RC-24	n.a.	n.a.
SK-RC-25	n.a.	n.a.
SK-RC-26*	n.d.	n.d.
SK-RC-28	x	√
SK-RC-30	n.a.	n.a.
SK-RC-34	n.a.	n.a.
SK-RC-37	√	n.d.
SK-RC-48	√	n.d.
SK-RC-56	√	√
SK-RC-61	√	√

*A cell line established from a metastatic site in the same patient is available. Please contact us for more details.

Key: x = No; √ = Yes; n.d. = Not Determined

Adapted from: Ebert T et al. *Cancer Research* 50: 5531-5536 (1990)

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



CELL LINES

Sarcoma



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



Saos-2: Human Osteosarcoma Cell Line (ATCC Catalogue No. HTB-85)

Description

Saos-2 is a human osteosarcoma cell line, which displays several osteoblastic features. These cells express receptors for 1,25-dihydroxyvitamin D3 and have high basal alkaline-phosphatase activity. They express the parathyroid hormone (PTH) receptor and produce cyclic AMP in response to treatment with PTH. These cells do not form tumors when injected subcutaneously into immunocompromised mice. When injected into diffusion chambers that are implanted intra-peritoneally into immunocompromised mice, however, Saos-2 cells produce a mineralized matrix, which is a defining characteristic of osteoblastic cells. All of these characteristics make this cell line an attractive source of bone-related molecules for research.

Source

This cell line was established in 1973 from an 11-year-old Caucasian female with osteogenic sarcoma.

Lead Inventor

- Jorgen Fogh, PhD, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) Absence of HeLa cell contamination in 169 cell lines derived from human tumors. *Journal of the National Cancer Institute* 58: 209-214. PMID: [833871](#)
- Rodan SB et al. (1987) Characterization of a human osteosarcoma cell line (Saos-2) with osteoblastic properties. *Cancer Research* 47: 4961-4966. PMID: [3040234](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRIM@mskcc.org.

MSK Tracking Code: SK 771

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



CELL LINES

Sarcoma, Ewing



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-ES-1: Human Ewing Sarcoma Cell Line (aka SK-ES-01)

Description

SK-ES-1 is a human Ewing sarcoma (anaplastic osteosarcoma) cell line that displays epithelial morphology and grows in adherent tissue culture. These cells are a useful preclinical model to study Ewing sarcoma and have been used in the assessment of experimental therapeutic agents.

SK-ES-1 cells form xenograft small-cell malignant tumors consistent with Ewing sarcoma when injected into immunocompromised mice. These cells have been reported to express mutant p53 (C176F) protein.

Source

This cell line was established in 1971 from a bone biopsy in an 18-year-old Caucasian male with Ewing's sarcoma.

Lead Inventor

- Eda T. Bloom, PhD, formerly at Sloan Kettering Institute, MSK

Key References

- Bloom ET (1972) Further definition by cytotoxicity tests of cell surface antigens of human sarcomas in culture. *Cancer Research* 32: 960-967. PMID: [4502173](#)
- Komuro H et al. (1993) Mutations of the p53 gene are involved in Ewing's sarcomas but not in neuroblastomas. *Cancer Research* 53: 5284-5288. PMID: [8221663](#)
- McCarty G, Awad O, and Loeb DM. (2011) WT1 protein directly regulates expression of vascular endothelial growth factor and is a mediator of tumor response to hypoxia. *Journal of Biological Chemistry* 286: 43634-43643. PMID: [22030397](#)
- Sémioud D et al. (2013) Can taxanes provide benefit in patients with CNS tumors and in pediatric patients with tumors?

An update on the preclinical development of cabazitaxel. *Cancer Chemotherapy and Pharmacology* 72: 515-528 (PubMed ID: [23820961](#))

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRTM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

MSK Tracking Code: SK1980-542

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.

MSK Office of Technology Development Contact for more information: TRMOTDRTM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



CELL LINES

Teratomas



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



Tera-2: Human Carcinoma Cell Line Derived from a Lung Metastatic Site (ATCC Catalogue No. HTB-106)

Description

This is a human malignant embryonal carcinoma cell line derived from a lung metastatic site. Karyotype characterization reveals (P13) hypotriploid (+A2, +A3, +B, +C, +E, +F, -A1) with abnormalities including acrocentric fragmentation and secondary constrictions. It is blood type A; Rh+.

Source

This cell line was established from a metastatic site (lung) in a 22-year-old Caucasian male.

Lead Inventor

- Jorgen Fogh, PhD, former at Sloan Kettering Institute, MSK

Key References

- Fogh J, et al. Absence of HeLa cell contamination in 169 cell lines derived from human tumors. *J. Natl. Cancer Inst.* 58: 209-214, 1977. PMID: [833871](#)
- Faust JB, Meeker TC. Amplification and expression of the bcl-1 gene in human solid tumor cell lines. *Cancer Res.* 52: 2460-2463, 1992. PMID: [1568216](#)
- Fogh J. Cultivation, characterization, and identification of human tumor cells with emphasis on kidney, testis, and bladder tumors. *Natl. Cancer Inst. Monogr.* 49: 5-9, 1978. PMID: [571047](#)
- Hay RJ, Caputo JL, Macy, ML, Eds. (1992) *ATCC Quality Control Methods for Cell Lines*. 2nd edition, Published by ATCC.
- Caputo, J. L., *Biosafety procedures in cell culture*. *J. Tissue Culture Methods* 11:223-227, 1988.
- Fleming, D.O., Richardson, J. H., Tulis, J.J. and Vesley, D., (1995) *Laboratory Safety: Principles and Practice*. Second edition, ASM press, Washington, DC.
- *Biosafety in Microbiological and Biomedical Laboratories*, 5th ed. HHS. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Washington DC: U.S. Government Printing Office; 2007. The entire text is available online.

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRIM@mskcc.org.

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



CELL LINES

Uterine Cancer



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-UT-1: Human Uterine Leiomyosarcoma Cell Line (aka SK-UT-01)

Description

SK-UT-1 is a human uterine leiomyosarcoma cell line that grows in adherent culture. This cell line has little or no phosphorylated retinoblastoma protein compared to the SK-UT-1B cells. SK-UT-1 cells are capable of forming tumors when inoculated in immunocompromised mice.

Source

This cell line was established in 1972 from a 75-year-old Caucasian female with a uterine mixed mesodermal tumor consistent with leiomyosarcoma grade III.

Inventors

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director, New York Branch, Ludwig Institute for Cancer Research
- Germaine Trempe, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. *Journal of the National Cancer Institute* 59: 221-226. PMID: [327080](#)
- Ganiatsas S et al. (2001) A splice variant of Skp2 is retained in the cytoplasm and fails to direct cyclin D1 ubiquitination in the uterine cancer cell line SK-UT. *Oncogene* 20: 3641-50. PMID: [11439327](#)
- Li B et al. (2013) Curcumin induces cross-regulation between autophagy and apoptosis in uterine leiomyosarcoma cells. *International Journal of Gynecological Cancer* 23: 803-808. PMID: [23532091](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions: Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

MSK Tracking Code: SK1980-537

SK-UT-1B: Human Uterine Leiomyosarcoma Cell Line (ATCC Catalogue No. HTB-115)

Description

SK-UT-1B is a subline of the SK-UT-1 human uterine leiomyosarcoma cell line and grows in adherent culture. Although the SK-UT-1B cell line forms tumors when inoculated in immunocompromised mice, the resulting tumors are different from tumors produced by the parental SK-UT-1

cell line. This cell line displays relatively low chromosome instability, compared to other established cancer cell lines. SK-UT-1B maintains a near-diploid karyotype and is characterized by a very low percentage of polyploid cells. The SK-UT-1B cells have high levels of phosphorylated retinoblastoma protein, compared to the parental SK-UT-1 cells. Source

This is a subline of the SK-UT-1 cell line. The parental cell line was established in 1972 from a 75-year-old Caucasian female with a uterine mixed mesodermal tumor consistent with leiomyosarcoma grade III.

Inventors

- Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK, New York Branch, Ludwig Institute for Cancer Research
- Germaine Trempe, formerly at Sloan Kettering Institute, MSK

Key References

- Fogh J et al. (1977) One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. *Journal of the National Cancer Institute* 59: 221-226. PMID: [327080](#)
- Chen TR (1988) SK-UT-1B, a human tumorigenic diploid cell line. *Cancer Genetics and Cytogenetics* 33: 77-81. PMID: [3383166](#)
- Mao X et al. (2008) Subtle genomic alterations and genomic instability revealed in diploid cancer cell lines. *Cancer Letters* 267: 49-54. PMID: [18407410](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRIM@mskcc.org.

MSK Tracking Code: SK2010-071

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes. **MSK Office of Technology Development Contact for more information:** TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-UT-02: Human Endometrial Carcinoma Cell Line

Description

SK-UT-02 is a human uterine cell line.

Source

This cell line was established from a uterine metastasis in a female with endometrial carcinoma.

Lead Researcher/Research Laboratory

Lloyd J. Old, MD, former William E. Snee Chair in Cancer Immunology, MSK; former Director of the Ludwig Institute for Cancer Research

Key References

- Li J., Zhao W., Akbani R., Liu W., Ju Z., Ling S., Vellano C.P., Roebuck P., Yu Q., Eterovic A.K., Byers L.A., Davies M.A., Deng W., Gopal Y.N.V., Chen G., von Euw E.M., Slamon D.J., Conklin D., Heymach J.V., Gazdar A.F., Minna J.D., Myers J.N., Lu Y., Mills G.B., Liang H. Characterization of human cancer cell lines by reverse-phase protein arrays. *Cancer Cell* 31:225-239(2017). PMID: [28196595](#)

Licensing Information

Express License: For internal research purposes by a for-profit entity: Fill out MSK's Core Express License; see [here](#) for links to the online fillable Core Express License, as well as a PDF version. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Research Materials team at TRMOTDRIM@mskcc.org.

For non-licensing requests from academic-research institutions:

Contact MSK's Antibody & Bioresource Core Facility at skiabcf@mskcc.org.

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



CELL LINES

Vulva



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK-LMS-01: Human Vulva Cancer – Vulvar Leiomyosarcoma Cell Line (ATCC Catalogue No. HTB-88)

Description

SK-LMS-01 is a human vulva cancer cell line.

Source

This cell line was established from a vulva metastasis in a 43-year-old person with Vulvar Leiomyosarcoma.

Lead Researcher/Research Laboratory

Germaine Trempe, formerly of MSK

Key References

- Fogh J., Trempe G.L. New human tumor cell lines. (In) Human tumor cells *in vitro*; Fogh J. (eds.); pp.115-159; Springer; New York (1975)

Licensing Information

Express License: For internal research purposes by a for-profit entity: 1) Fill out MSK's ATCC Express License; see [here](#) for links to the online fillable ATCC Express License, as well as a PDF version. 2) After execution by MSK, you will receive a signed copy, and can then place your order with ATCC. For detailed guidance on how to fill out this webform, see [here](#). Please note: In order to streamline and expedite the licensing of select MSK cell lines, the terms of this non-exclusive license are non-negotiable. This license is only available for select cell lines, including this one. Once this license has been executed by MSK, you will receive a signed copy and payment instructions; all payments up to \$10,000 must be made by credit card.

Commercial License: Contact MSK's Tangible Materials team at TRMOTDRIM@mskcc.org.

MOUSE MODELS



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



SK1040: The Ef-Luc Mouse

Description

The Ef-Luc mouse is a transgenic mouse model expressing luciferase driven by an E2F1 responsive promoter used for the sensitive, non-invasive, *in vivo* detection of tumor growth. It is patent protected by U.S. Patent 7,041,869.

E2F1 is a transcription factor whose activity is repressed by the retinoblastoma protein (Rb), a master regulator of cell-cycle progression through the G1 to S transition. A common feature in many distinct types of human malignancies is the loss of Rb function, resulting in upregulation of E2F1 transcriptional activity and dysregulation of cell-cycle control.

Therefore, the Ef-Luc mouse can be considered a general reporter animal useful for the detection and imaging of multiple different tumor types.

Tumor formation as well as efficacy of anticancer treatment can be monitored over time using a single Ef-Luc Mouse.

The Ef-Luc mouse is an ideal tool for monitoring cell-cycle activity during tumor development in a living animal using bioluminescence imaging.

Areas of abnormally high cell proliferation in the Ef-Luc mouse, namely cancerous cells, drive expression of luciferase.

The resulting luciferase can be detected by injection of the Ef-Luc mouse with the luciferase substrate luciferin; luciferase oxidization of luciferin produces light that is then detected through the body of the mouse and is proportional to tumor cell burden.

Intellectual Property

The Ef-Luc Mouse is patent protected: U.S. Patent 7,041,869.

Advantages

- High sensitivity allows detection of small subcutaneous tumors (<1,000 cancer cells) and deeper lesions (1-3 cm deep), which can be undetectable by standard measurement methods.
- Universal tumor detection increases the applicability of the Ef-Luc mouse model to multiple tumor types.
- Quantitative measurement of tumor burden reveals subtle changes in tumor growth.

- Rapid real-time imaging allows spatial and temporal resolution of tumor growth.
- This noninvasive method with minimal toxicity allows repeated imaging of a single animal. Fewer mice are needed per study, which reduces the cost of animal studies.

Key References

- Uhrbom L, et al. (2004) Nature Medicine. Nov; 10(11):1257-1260.

Lead Inventor

- Eric C. Holland, MD, PhD, formerly of MSK



SK2011-042. Conditional ASXL1 Knock-out Mouse Model

Description

Mutations in Additional Sex Combs-Like 1 (ASXL1) were described in bcr-abl1 negative myeloproliferative neoplasms (MPN). These mutations are common in myelomonocytic leukemias, secondary acute myeloid leukemias, including blast-phase MPN, and in myelodysplastic syndromes, and they are associated with worsened overall survival.

As a research tool, this mouse model offers promising potential to investigators seeking insights into epigenetic modifiers of signal transduction in myeloproliferative disorders. It may therefore help facilitate the development of biomarkers, new drugs, and/or novel treatment regimens.

Source

This knock-out mouse was made at InGenious, and was developed by MSK investigators in collaboration with investigators at NYU.

Lead Inventor

- Ross Levine, MD, Director, MSK Center for Hematologic Malignancies, and Laboratory Head, Human Oncology & Pathogenesis Program, MSK

SK2011-043. Conditional BAPI Knock-out Mouse Model

Description

The BAPI nuclear deubiquitinase is known to target histones (together with ASXL1 as a Polycomb repressor subunit) and the HCF1 transcriptional co-factor. Mutations in BAPI thus far have been most strongly associated with an increased risk of developing mesothelioma and uveal melanoma.

As a research tool, this mouse model offers promising potential to investigators seeking insights into epigenetic modifiers of signal transduction in myeloproliferative disorders. It may therefore help facilitate the development of biomarkers, new drugs, and/or novel treatment regimens.

Source

This mouse was generated entirely by MSK investigators using EUCOM ES cells.

Lead Inventor

- Ross Levine, MD, Director, MSK Center for Hematologic Malignancies, and Laboratory Head, Human Oncology & Pathogenesis Program, MSK



SK2011-047. MAD2 Overexpressing Mice

Description

MSK's MAD2 overexpressing mice are available for license as a research tool. The mitotic checkpoint protein hsMad2 is required to arrest cells in mitosis when chromosomes are unattached to the mitotic spindle. The presence of a single, lagging chromosome is sufficient to activate the checkpoint, producing a delay at the metaphase-anaphase transition until the last spindle attachment is made. Complete loss of the mitotic checkpoint results in embryonic lethality owing to chromosome mis-segregation in various organisms.

Investigators have also found that Mad2^{+/-} mice develop lung tumors at high rates after long latencies, implicating defects in the mitotic checkpoint in tumorigenesis.

Lead Inventor

- Robert Benezra, PhD, Laboratory Head, Cancer Biology & Genetics Program, Sloan Kettering Institute, MSK

References

- Michel LS et al. (2001) MAD2 haplo-insufficiacy causes premature anaphase and chromosome instability in mammalian cells. Nature Jan. 18;409(6818): 355-9 (PMID: [11201745](#))

Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



PDX MODELS



Licensing Information: Corporations and other for-profit entities may nonexclusively license MSK's tangible materials for research or certain commercial purposes.
MSK Office of Technology Development Contact for more information: TRMOTDRIM@mskcc.org. Note that availability, pricing, and license contracts are subject to change.



MSK-LX29 (Adenocarcinoma)

Sex: Female

Histology: Adenocarcinoma

Key Mutations: EGFR L858R, TP53 R248Q, MET Amplified, ERBB2 Amplified

Molecular Characteristics: MSK-IMPACT

Matched Normal: Yes Treatment: erlotinib Site: Lung

Paired: No

Comments: erlotinib resistant

MSK-LX40 (Small Cell Lung Cancer)

Sex: Male

Histology: Small cell lung cancer

Key Mutations: TP53 H179R, RB1 S567*, NOTCH1 P2Rfs*31, MYCL Amplified

Molecular Characteristics: MSK-IMPACT, whole exome sequencing

Matched Normal: Yes

Treatment: LDE225 + cisplatin + etoposide

Site: Lung

Paired: Yes

Comments: Chemosensitive relapse

MSK-LX40-R (Small Cell Lung Cancer)

Sex: Male

Histology: Small cell lung cancer

Key Mutations: TP53 H179R, RB1 S567*, NOTCH1 P2Rfs*31, MYCL Amplified

Molecular Characteristics: MSK-IMPACT, whole exome sequencing

Matched Normal: Yes

Treatment: LDE225 + cisplatin + etoposide, extensive cisplatin and etoposide treatment in PDX

Site: Lung

Paired: Yes

Comments: Chemoresistant

MSK-LX55 (Adenocarcinoma)

Sex: Male

Histology: Adenocarcinoma

Key Mutations: EML4-ALK Fusion

Molecular Characteristics: Yes

Matched Normal: Yes

Treatment: crizotinib

Site: Lung

Paired: No

Comments: crizotinib resistant



MSK-LX95 (Small Cell Lung Cancer)

Sex: Male

Histology: Small cell lung cancer

Key Mutations: TP53 G154Afs*16, RB1 X203_splice, PTEN L181Wfs*13, MYCN Amplified

Molecular Characteristics: MSK-IMPACT, whole exome sequencing

Matched Normal: Yes Treatment: cisplatin + etoposide Site: Lung

Paired: Yes

Comments: Chemosensitive relapse

MSK-LX285 (Adenocarcinoma)

Sex: Male

Histology: Adenocarcinoma

Key Mutations: EGFR L858R, EGFR T790M, EGFR Amplified

Molecular Characteristics: MSK-IMPACT

Matched Normal: Yes Treatment: erlotinib Site: Lung

Paired: No

Comments: erlotinib resistant

MSK-LX95-R (Small Cell Lung Cancer)

Sex: Male

Histology: Small cell lung cancer

Key Mutations: TP53 G154Afs*16, RB1 X203_splice, PTEN L181Wfs*13, MYCN Amplified

Molecular Characteristics: MSK-IMPACT, whole exome sequencing

Matched Normal: Yes

Treatment: cisplatin + etoposide, extensive cisplatin and etoposide treatment in PDX

Site: Lung

Paired: Yes

Comments: Chemoresistant

