

# Cell library

Which options do I have for the cultivation of my cells?





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# Are you planning to add a new cell line to your cell culture? Or cell growth could be optimized?

No matter how different your cells are – their demands on the growth surface are just as individual. Our range of TC flasks, dishes and plates is therefore available with three different growth surfaces that come with a color code for easy identification. For easy selection of the appropriate growth surface, the following pages provide an overview of cells that have already been successfully cultivated on our surfaces.

This Cell Library is intended to support you in selecting the optimal growth surface for your cells. In view of the multitude of factors that have an impact on cell cultivation, we recommend to always test the products under your specific conditions.

Your cell has not been listed yet but you have already tested our growth surfaces? We are always interested in expanding our Cell Library. Share your experience with us!





# Growth surfaces and color coding

A basic requirement for the successful cultivation of cells *in-vitro* is to simulate the *in-vivo* environment of the relevant cell type as accurately as possible. The surface condition of the culture vessel is particularly important here, because many cell types can only survive, proliferate and differentiate following successful adhesion. In order to meet the require-

ments for as many different cell types as possible, Sarstedt offers flasks, dishes and plates with three different growth surfaces. The products are labeled as follows according to the SARSTEDT color coding system in order to allow for clear identification of the vessels, even after removal from the packaging:

## SARSTEDT standard surface for adherent cells

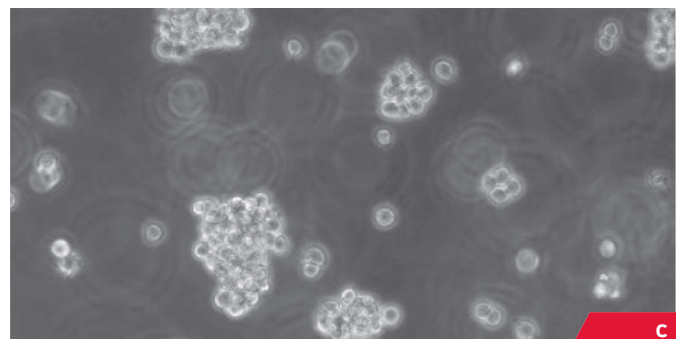
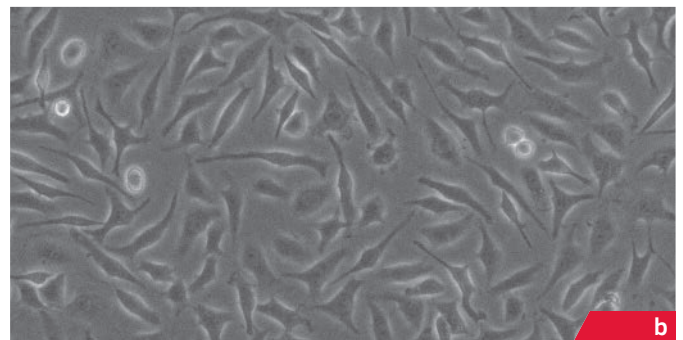
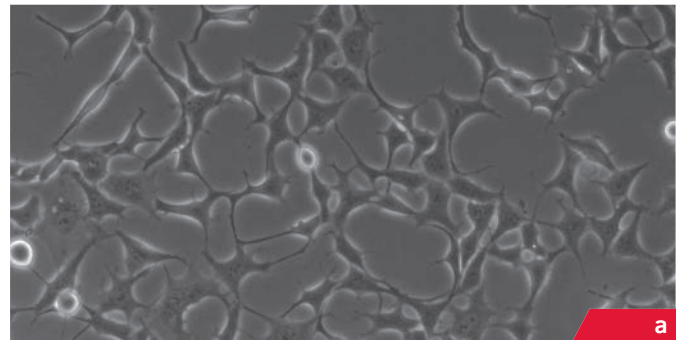
Hydrophilic groups are introduced into the surface via a special treatment of the polystyrene surface. This allows for the formation of cell surface proteins and therefore the adhesion of the cells to the plastic surface. The hydrophilic standard growth surface, which is coded red, provides an optimum culture substrate for many adherent cells.

## SARSTEDT Cell<sup>+</sup> surface for sophisticated adherent cells

Primary cells, sensitive cell culture lines and cells which are cultivated under serum-reduced/serum-free conditions have particularly high requirements for the surface of the cell culture vessel. The yellow-coded Cell<sup>+</sup> growth surface was developed specifically for these cells. Additional polar groups are introduced into the hydrophilic surface via special treatment of the plastic surface. This leads to improved imitation of the *in-vivo* environment and therefore to the adhesion of sophisticated cells. Due to its properties, the Cell<sup>+</sup> surface can make the use of coated culture vessels redundant in many cases.

## SARSTEDT suspension culture surfaces

Culture vessels with the green, hydrophobic growth surface are ideally suited for suspension cells (usually cells of lymphoid origin, hybridoma cells etc.) which are not adherently cultivated in solution. The hydrophobic surface minimizes cell losses during sub-cultivation due to unwanted microadhesion.



100 µm

The cultivation of various cell types on Sarstedt growth surfaces clearly shows the vitality of the various cell types\*. a) HEK293 cells cultivated on the standard TC surface for 48 h. b) CHO cells cultivated on the Cell<sup>+</sup> surface under serum-reduced conditions (1%) for 24 h. c) Jurkat cells cultivated on the suspension surface for 72 h. (c). The measuring bar corresponds to 100 µm.

## Cells cultivated on our three different growth surfaces

Name	Description	Growth Surface		
		Standard	Cell+	Suspension
143 B	Human bone osteosarcoma cell line	■		
164T2	Murine T-cell lymphoma cell line			■
4T1	Murine mammary gland cell line	■		
A498	Human kidney carcinoma cell line	■		
A549	Human non-small cell lung cancer cell line	■		
ABSa15	Seabream vertebrae cell line ( <i>S. aurata</i> )	■		
AsPC	Human pancreas adenocarcinoma cell line		■	
AsPC-1	Human pancreatic adenocarcinoma cell line	■		
Astrocytes	Primary rat astrocytes	■		
Astrocytes	Primary murine astrocytes		■	
B cell	B cell lymphoma cell line			■
B16F10	Murine melanoma cells	■		
Balb3T3	Murine fibroblast cell line	■		
BCE	Bovine adrenal cortical capillary endothelial cells		■	
BEAS-2B	Human bronchial epithelium cell line		■	
BeWo	Placental choriocarcinoma cell	■		
BeWoMDR	Placental choriocarcinoma cell - virally transduced	■		
BGE	Snail cell line	■		
Big Blue Mouse Cells	Big Blue mouse embryonic cell line	■		
BT-474	Human ductal carcinoma cell line	■		
BT549	Human breast cancer carcinoma cell line	■		
BxPC-3	Human Pancreas adenocarcinoma cell line	■		
C6	Rat glioma cell line	■		
CaCO2	Human epithelial colon adenocarcinoma cell line	■		
CaCO3	Human epithelial colon adenocarcinoma cell line	■		
Caov-3	Human ovary adenocarcinoma cell line	■		
Capan-1	Human pancreas adenocarcinoma cell line (liver metastasis)	■		
Capan-2	Human pancreas adenocarcinoma cell line	■		
CCRF-CEM	Human acute lymphoblastic T-leukemia cell line			■
CHME5	Human microglia cell line		■	
CHO	Chinese hamster ovarian cell line	■	■	
COLO 205	Human colorectal adenocarcinoma cell line	■		
COS-7	African green monkey kidney cell line (SV40 transformed)	■		
COS-8	African green monkey kidney cell line (SV40 transformed)	■		
CRNK-16	Rat natural killer cell line			■
CV-1	African green monkey kidney cell line	■		
DAOY	Human cerebellar medulloblastoma cell line	■		
Dendritic cells	Derived from monocytes		■	
DM-3	Mesothelioma cell line	■		
Dnmt1 KO/HCT116	Human colon cancer		■	
Dnmt3b KO/HCT116	Human colon cancer		■	
DU145	Human prostate carcinoma cell line	■		■
EA.hy926	Human somatic cell hybrid	■		
Embryonic Bodies	Human embryonic bodies		■	
EOMA	Murine endothelial cell line (hemangioendothelioma)	■		
FaDu	Human squamous cell carcinoma cell line (pharynx, epithelial)	■		

## Cells cultivated on our three different growth surfaces

Name	Description	Growth Surface		
		Standard	Cell+	Suspension
Fibroblasts	Human foreskin fibroblasts	■		
Fibroblasts	Murine fibroblasts	■		
Fibroblasts	Murine pancreatic fibroblasts	■		
FM3A	Murine mammary carcinoma cell line		■	
Ge	Human melanoma cell line	■		
Glioma Cells	Primary human glioma cells	■		
Glioma Spheroids	Human glioma spheroid culture			■
H292	Non-small cell lung cancer cell line (mucoepidermoid pulmonary carcinoma)	■		
H460	Non-small cell lung cancer cell line (large-cell)	■		
H520	Non-small cell lung cancer cell line (squamous cell carcinoma)	■		
H596	Non-small cell lung cancer cell line (squamous cell carcinoma)	■		
H661	Non-small cell lung cancer cell line (large-cell)	■		
H69	Cholangiocytes	■		
HaCaT	Human keratinocyte cell line	■		
HCT-116	Human colorectal carcinoma cell line	■	■	
HCT-15	Human colorectal carcinoma cell line	■		
HCT-8	Human colorectal carcinoma cell line	■		
HDF	Human dermal fibroblasts	■		
HEC-1-B	Human adenocarcinoma cell line (uterus, epithelial)	■		
HEK	Human embryonic kidney cell line		■	
HEK293	Human embryonic kidney cell line	■	■	
HEK-293T	Human embryonic kidney cell line - Large T-Antigen	■	■	
HeLa	Human cervix carcinoma cell line	■	■	
Hep 3B	Human hepatocellular carcinoma cell line	■		
Hep G2	Human hepatocellular carcinoma cell line	■		
HLF-A	Human lung fibroblasts	■		
HLF-F	Human lung fibroblasts	■		
HmgB1	Murine fibroblast		■	
HmgB1 KO C1	Murine fibroblast		■	
HMVEC	Human microvascular endothelial cells	■		
HT1080	Human connective tissue fibrosarcoma cell line	■	■	
HT29	Human colorectal carcinoma cell line	■		
HTB-9	Human urinary bladder carcinoma cell line	■		
Huh7	Humane hepatocellular carcinoma cell line	■		
HupT3	Human pancreatic carcinoma		■	
HupT4	Human pancreatic carcinoma		■	
HUVEC	Human umbilical vein endothelial cells		■	
Hybridoma				■
IMR90	Human fibroblast		■	
IS-AD-MSC	Mesenchymal stem cells from human adipose tissue		■	
Islet Cells	Primary human pancreatic islet cells			■
J774	Murine reticulum cell sarcoma (monocyte/macrophage) cell line	■	■	
JL-1	Mesothelioma cell line	■		
Jurkat	Human lymphoma cell line			■
Jurkat E6.1	Human lymphoma cell line			■
K-562	Human lymphoma cell line			■

## Cells cultivated on our three different growth surfaces

Name	Description	Growth Surface		
		Standard	Cell+	Suspension
L2	Murine lung fibroblast cell line	■		
L-929	Murine fibroblast cell line (subcutaneous connective tissue)	■	■	
L-930	Murine fibroblast cell line (subcutaneous connective tissue)	■		
Lewis Lung	Murine lung carcinoma cell line	■		
LLC-MK2	Rhesus monkey kidney epithelial cell line	■		
LN215	Human glioma cell line	■		
LNCap	Human prostate carcinoma cell line	■	■	
Ls180	Human colorectal adenocarcinoma cell line	■		
Luteinized granulosa cells	Human	■		
M-14-K	Mesothelioma cell line	■		
MBIII	Murine lymphoma cell line		■	
MC57	Fibrosarcoma cell line	■		
MCF-7	Human breast cancer cell line	■		
MDA-MB-231	Human mammary adenocarcinoma	■		
MDA-MB-435	Human breast cancer cell line	■		
MDA-MB-435 2C5	Human breast cancer cell line	■		
MDA-MB-435 4A4	Human breast cancer cell line	■		
MDA-MB-453	Human mammary metastatic adenocarcinoma	■		
MDA-MB-468	Human mammary adenocarcinoma	■		
MDCK	Canine kidney cell line	■	■	
Medullary Thyroid Carcinoma	Primary medullary thyroid carcinoma cells		■	
MIA-Paca 2	Human pancreatic carcinoma cell line	■		
MLE-12	Murine lung epithelial cell line (SV40 transformed)	■		
MLS-9	Rat microglia cell line	■		
mMHS	Murine macrophage cell line	■		
MMT 060562	Murine mammary gland cell line	■		
Monocyte-derived macrophages		■	■	
MSC	Mesenchymal stem cell-like cultures from human umbilical cord	■		
Myoblasts			■	
N87	Human gastric carcinoma cell line	■		
Neurosphere culture				■
NIH3T3	Murine embryonic fibroblast cell line	■	■	
NUGC 4	Human gastric carcinoma cell line	■		
OST	Human osteosarcoma cell line	■		
OVCAR-3	Human ovary adenocarcinoma cell line	■		
OVCAR-8	Human ovary adenocarcinoma cell line	■		
P815-1-1	Murine mastocytoma cell line			■
PaCa28	Human pancreatic carcinoma cell line	■		
PA-Tu-8988t	Human pancreas adenocarcinoma cell line		■	
PC-12	Rat adrenal gland cell line		■	
PC3	Human prostate adenocarcinoma cell line	■		
Pituitary Cells	Primary rat pituitary cells (single cells & aggregates)	■		
pmi28	Murine primary myoblast cells		■	
Primary cortical neurons			■	
Raji	Human B lymphocytes cell line			■
RAW264.7	Murine macrophage cell line	■		



## Cells cultivated on our three different growth surfaces

Name	Description	Growth Surface		
		Standard	Cell+	Suspension
RGMI186	Rat non-cancer gastric epithelial cell line	■		
RIN-m5f	Rat pancreas cell line		■	
RLE-6TN	Rat lung epithelial cell line	■		
RPM18226	Myeloma cell line	■		
RT112	Human bladder carcinoma cell line	■		
S11	Murine T-cell lymphoma cell line			■
S2	Schneider's Drosophila cell line (embryo epithelial)			■
SCC-25	Human squamous cell carcinoma cell line	■		
SF2	Rat dental epithelial cells			■
SF9	Fall armyworm ovary cell line			■
SH-SY5Y	Human neuroblastoma cell line	■	■	
SK-BR-3	Human breast cancer cell line	■		
SK-Hep-1	Human adenocarcinoma cell line	■		
SK-MES	Non-small cell lung cancer cell line (squamous cell carcinoma)	■		
SK-OV-3	Human ovary adenocarcinoma cell line	■		
SL/SI4	Murine mast cell cell line	■		
SN12C	Human renal cell carcinoma cell line	■		
SNB-19	Human glioblastoma cell line	■		
SOSN2	Rat osteosarcoma cell line	■		
SP2/O	Mouse myeloma cell line	■		
STAV-AB	Mesothelioma cell line	■		
STAV-FCS	Mesothelioma cell line	■		
SW1116	Human colorectal adenocarcinoma cell line	■		
SW620	Human colorectal adenocarcinoma (lymph node metastasis) cell line	■		
SW-900	Non-small cell lung cancer cell line (squamous cell carcinoma)	■		
T24	Human urinary bladder carcinoma cell line	■		
THP-1	Human monocyte cell line	■		
TIF-IA tet off HeLaR4	Human cervix carcinoma		■	
TOV21	Human ovary adenocarcinoma cell line	■		
TZM	HeLa cell derivative	■		
U251	Human glioma cell line	■		
U87 MG	Human glioblastoma cell line	■		
U937	Human lymphoma cell line			■
UACC257	Human melanoma cell line	■		
UM-UC-3	Human urinary bladder carcinoma cell line	■		
Vero (1972) P135	African green monkey kidney cell line	■		
VSa13	Seabream branchial arch cell line (S. aurata)	■		
VSa16	Seabream branchial arch cell line (S. aurata)	■		
VSMC	Rat vascular smooth muscle cell line	■		
WI38	Human fibroblast		■	
WiDr	Human colorectal adenocarcinoma cell line	■		
XPA1	Human pancreatic cancer cell line	■		
YAC-1	Molony virus-induced lymphoma cell line, murine			■
ZL-34	Mesothelioma cell line	■		

# Reference Library ...

... for cells cultivated on the standard adherent growth surface (red) ■

Name	Description	Literature/Source
<b>143 B</b>	Human bone osteosarcoma cell line	Customer information/Sarstedt in-house test
<b>4T1</b>	Murine mammary gland cell line	Customer information/Sarstedt in-house test
<b>A498</b>	Human kidney carcinoma cell line	Customer information/Sarstedt in-house test
<b>A549</b>	Human non-small cell lung cancer cell line	Cytarska, J. et al., Acta Poloniae Pharmaceutica ñ Drug Research, Vol. 70 No. 3 pp. 481ñ487, 2013
<b>A549</b>	Human non-small cell lung cancer cell line	Karimi-Busheri, F et al., Multidisciplinary Respiratory Medicine 2013, 8:65
<b>ABSa15</b>	Seabream vertebrae cell line (S. aurata)	Marques, C. et al., Cytotechnology (2007) 55:9-13
<b>AsPC-1</b>	Human pancreatic adenocarcinoma cell line	Customer information/Sarstedt in-house test
<b>Astrocytes</b>	Primary rat astrocytes	Ronaldson & Bendayan, J. Neurochem. 2008, 106, 1298-1313
<b>Astrocytes</b>	Primary rat astrocytes	Ronaldson, P. et al., Journal of Neurochemistry, 2004, 89, 788–800
<b>B16F10</b>	Murine melanoma cells	Szczaurska-Nowak, K. et al., Anticancer Research 29: 2361-2370 (2009)
<b>Balb3T3</b>	Murine fibroblast cell line	Cytarska, J. et al., Acta Poloniae Pharmaceutica ñ Drug Research, Vol. 70 No. 3 pp. 481ñ487, 2013
<b>BeWo</b>	Placental choriocarcinoma cell	Mark & Waddell, Endocrinology 2006, 147(11):5147-5152
<b>BeWoMDR</b>	Placental choriocarcinoma cell - virally transduced	Mark & Waddell, Endocrinology 2006, 147(11):5147-5152
<b>BGE</b>	Snail cell line	Customer information/Sarstedt in-house test
<b>Big Blue Mouse Cells</b>	Big Blue mouse embryonic cell line	Bielas & Heddle, PNAS 2000, Vol. 97, No. 21, 11391-11396
<b>BT-474</b>	Human ductal carcinoma cell line	Customer information/Sarstedt in-house test
<b>BT549</b>	Human breast cancer carcinoma cell line	Moon, B. et al., American Journal of Pathology, Vol. 159, No. 3, Sept. 2001
<b>BxPC-3</b>	Human pancreas adenocarcinoma cell line	Customer information/Sarstedt in-house test
<b>C6</b>	Rat glioma cell line	Isakovic, A. et al., Toxicological Sciences 91(1), 173–183 (2006)
<b>CaCO2</b>	Human epithelial colon adenocarcinoma cell line	Mellor, G. et al., Applied and Environmental Microbiology, Mar. 2009, p. 1796–1799
<b>CaCO3</b>	Human epithelial colon adenocarcinoma cell line	Oikonomou, E. et al., British Journal of Cancer (2007) 97, 73 – 84
<b>Caov-3</b>	Human ovary adenocarcinoma cell line	Customer information/Sarstedt in-house test
<b>Capan-1</b>	Human pancreas adenocarcinoma cell line (liver metastasis)	Customer information/Sarstedt in-house test

Name	Description	Literature/Source
<b>Capan-2</b>	Human pancreas adenocarcinoma cell line	Customer information/Sarstedt in-house test
<b>CHO</b>	Chinese hamster ovarian cell line	Yamamoto, K. et al., Biochem. J. (2012) 445, 135–144
<b>CHO</b>	Chinese hamster ovarian cell line	Ehrlich, J. et al., Cardiovascular Research 67 (2005) 520 – 528
<b>COLO 205</b>	Human colorectal adenocarcinoma cell line	Customer information/Sarstedt in-house test
<b>COS-7</b>	African green monkey kidney cell line (SV40 transformed)	Ehrlich, J. et al., Cardiovascular Research 67 (2005) 520 – 528
<b>COS-8</b>	African green monkey kidney cell line (SV40 transformed)	Schug and Joseph, The Journal of Biological Chemistry VOL. 281, NO. 34, pp. 24431–24440
<b>CV-1</b>	African green monkey kidney cell line	Customer information/Sarstedt in-house test
<b>DAOY</b>	Human cerebellar medulloblastoma cell line	Customer information/Sarstedt in-house test
<b>DM-3</b>	Mesothelioma cell line	Szulkin A, et al., PLoS ONE 2013, Vol. 8 Issue 6, e65903
<b>DU145</b>	Human prostate carcinoma cell line	Customer information/Sarstedt in-house test
<b>EA.hy926</b>	Human somatic cell hybrid	Customer information/Sarstedt in-house test
<b>EOMA</b>	Murine endothelial cell line (hemangioendothelioma)	Customer information/Sarstedt in-house test
<b>FaDu</b>	Human squamous cell carcinoma cell line (pharynx, epithelial)	Customer information/Sarstedt in-house test
<b>Fibroblasts</b>	Human foreskin fibroblasts	Customer information/Sarstedt in-house test
<b>Fibroblasts</b>	Murine fibroblasts	Customer information/Sarstedt in-house test
<b>Fibroblasts</b>	Murine pancreatic fibroblasts	Mueerkoester, S. et al., Cancer Research 64, 1331–1337, February 15, 2004
<b>Ge</b>	Human melanoma cell line	Elsner, L. et al., J Immunol 2007, 179:5523-5533
<b>Glioma Cells</b>	Primary human glioma cells	Koschny, R. et al., Clin Cancer Res 2007;13:3403-3412
<b>H292</b>	Non-small cell lung cancer cell line (Mucoepidermoid pulmonary carcinoma)	Karimi-Busheri, F et al., Multidisciplinary Respiratory Medicine 2013, 8:65
<b>H460</b>	Non-small cell lung cancer cell line (large-cell)	Karimi-Busheri, F et al., Multidisciplinary Respiratory Medicine 2013, 8:65
<b>H520</b>	Non-small cell lung cancer cell line (squamous cell carcinoma)	Karimi-Busheri, F et al., Multidisciplinary Respiratory Medicine 2013, 8:65
<b>H596</b>	Non-small cell lung cancer cell line (squamous cell carcinoma)	Karimi-Busheri, F et al., Multidisciplinary Respiratory Medicine 2013, 8:65
<b>H661</b>	Non-small cell lung cancer cell line (large-cell)	Karimi-Busheri, F et al., Multidisciplinary Respiratory Medicine 2013, 8:65
<b>H69</b>	Cholangiocytes	Customer information/Sarstedt in-house test
<b>HaCaT</b>	Human keratinocyte cell line	Customer information/Sarstedt in-house test
<b>HCT-116</b>	Human colorectal carcinoma cell line	Customer information/Sarstedt in-house test
<b>HCT-15</b>	Human colorectal carcinoma cell line	Customer information/Sarstedt in-house test
<b>HCT-8</b>	Human colorectal carcinoma cell line	Customer information/Sarstedt in-house test
<b>HDF</b>	Human dermal fibroblasts	Customer information/Sarstedt in-house test
<b>HEC-1-B</b>	Human adenocarcinoma cell line (uterus, epithelial)	Customer information/Sarstedt in-house test
<b>HEK293</b>	Human embryonic kidney cell line	Qasim, M. et al., Proteome Science 2011, 9:57
<b>HEK293</b>	Human embryonic kidney cell line	Yamamoto, K. et al., Biochem. J. (2012) 445, 135–144

## Cells cultivated on the standard adherent growth surface (red) ■

Name	Description	Literature/Source
<b>HEK-293T</b>	Human embryonic kidney cell line - Large T-Antigen	Javadi, M. et al., J. Biol. Chem., published online May 21, 2013
<b>HEK-293T</b>	Human embryonic kidney cell line - Large T-Antigen	Shcharbin, D. et al., Pharmaceutics 2011, 3, 458-473
<b>HeLa</b>	Human cervix carcinoma cell line	Fischer, R. et al., The Journal of Biological Chemistry, Vol.279, No. 13, Issue of March 26.pp. 12625-12635, 2004
<b>HeLa</b>	Human cervix carcinoma cell line	Leduc, M. et al., New Journal of Physics 11 (2009) 115021
<b>Hep 3B</b>	Human hepatocellular carcinoma cell line	Customer information/Sarstedt in-house test
<b>Hep G2</b>	Human hepatocellular carcinoma cell line	Harnack, K. et al., Nutrition & Metabolism 2009, 6:8
<b>HLF-A</b>	Human lung fibroblasts	Customer information/Sarstedt in-house test
<b>HLF-F</b>	Human lung fibroblasts	Customer information/Sarstedt in-house test
<b>HMVEC</b>	Human microvascular endothelial cells	Gonzales, M. et al., Molecular Biology of the Cell Vol. 12, 85-100, 2001
<b>HT1080</b>	Human connective tissue fibrosarcoma cell line	Customer information/Sarstedt in-house test
<b>HT29</b>	Human colorectal carcinoma cell line	Qasim, M. et al., Proteome Science 2011, 9:57
<b>HT29</b>	Human colorectal carcinoma cell line	Oikonomou, E. et al., British Journal of Cancer (2007) 97, 73 – 84
<b>HT29</b>	Human colorectal carcinoma cell line	Mellor, G. et al., Applied and Environmental Microbiology, Mar. 2009, p. 1796–1799
<b>HTB-9</b>	Human urinary bladder carcinoma cell line	Customer information/Sarstedt in-house test
<b>Huh7</b>	Humane hepatocellular carcinoma cell line	Gozdek, A. et al., Antimicrobial Agents and Chemotherapy, Feb. 2008, p. 393–401
<b>J774</b>	Murine reticulum cell sarcoma (monocyte/macrophage) cell line	Miranda-CasoLuengo, R. et al., Infect. Immun. 2012, 80(12):4106
<b>JL-1</b>	Mesothelioma cell line	Szulkin A, et al., PLoS ONE 2013, Vol. 8 Issue 6, e65903
<b>L2</b>	Murine lung fibroblast cell line	Baig & Fish, Antiviral Therapy 2008 13:409-422
<b>L-929</b>	Murine fibroblast cell line (subcutaneous connective tissue)	Baig & Fish, Antiviral Therapy 2008 13:409-422
<b>L-930</b>	Murine fibroblast cell line (subcutaneous connective tissue)	Isakovic, A. et al., Toxicological Sciences 91(1), 173–183 (2006)
<b>Lewis Lung</b>	Murine lung carcinoma cell line	Customer information/Sarstedt in-house test
<b>LLC-MK2</b>	Rhesus monkey kidney epithelial cell line	Customer information/Sarstedt in-house test
<b>LN215</b>	Human glioma cell line	Koschny, R. et al., Clin Cancer Res 2007;13:3403-3412
<b>LNCap</b>	Human prostate carcinoma cell line	Butterworth, K. et al., Int. J. Cancer: 123, 760–768 (2008)
<b>LNCap</b>	Human prostate carcinoma cell line	Tassidis, H. et al., Int. J. Cancer: 126, 2296–2307 (2010)
<b>Ls180</b>	Human colorectal adenocarcinoma cell line	Customer information/Sarstedt in-house test
<b>Luteinized granulosa cells</b>	Human	Rodewald, M. et al., Human Reproduction, Vol.24, No.5 pp. 1191–1199, 2009
<b>M-14-K</b>	Mesothelioma cell line	Szulkin A, et al., PLoS ONE 2013, Vol. 8 Issue 6, e65903
<b>MC57</b>	Fibrosarcoma cell line	Fischer, R. et al. The Journal of Biological Chemistry, Vol.279, No. 13, Issue of March 26.pp. 12625-12635, 2004

Name	Description	Literature/Source
<b>MCF-7</b>	Human breast cancer cell line	Lovric, J. et al. Chemistry & Biology, Vol. 12, 1227–1234, November 2005
<b>MCF-7</b>	Human breast cancer cell line	Cytarska, J. et al., Acta Poloniae Pharmaceutica ñ Drug Research, Vol. 70 No. 3 pp. 481ñ487, 2013
<b>MCF-7</b>	Human breast cancer cell line	Ecimovic, P. et al., British Journal of Anaesthesia 107 (6): 916–23 (2011)
<b>MCF-7</b>	Human breast cancer cell line	Constantini, D. et al., The Journal of Nuclear Medicine, 2008, Vol. 49, No. 9, 1498-1505
<b>MDA-MB-231</b>	Human mammary adenocarcinoma	Ecimovic, P. et al., British Journal of Anaesthesia 107 (6): 916–23 (2011)
<b>MDA-MB-231</b>	Human mammary adenocarcinoma	Constantini, D. et al., The Journal of Nuclear Medicine, 2008, Vol. 49, No. 9, 1498-1505
<b>MDA-MB-232</b>	Human mammary adenocarcinoma	Bordag et al., Metabolomics 2016, 6:1, doi: 10.4172/2153-0769.1000164
<b>MDA-MB-435</b>	Human breast cancer cell line	Furlong, S. et al., Oncology Reports 15: 1385-1390, 2006
<b>MDA-MB-435 2C5</b>	Human breast cancer cell line	Customer information/Sarstedt in-house test
<b>MDA-MB-435 4A4</b>	Human breast cancer cell line	Customer information/Sarstedt in-house test
<b>MDA-MB-453</b>	Human mammary metastatic adenocarcinoma	Customer information/Sarstedt in-house test
<b>MDA-MB-468</b>	Human mammary adenocarcinoma	Customer information/Sarstedt in-house test
<b>MDCK</b>	Canine kidney cell line	Customer information/Sarstedt in-house test
<b>MIA-Paca 2</b>	Human pancreatic carcinoma cell line	Customer information/Sarstedt in-house test
<b>MLE-12</b>	Murine lung epithelial cell line (SV40 transformed)	Customer information/Sarstedt in-house test
<b>MLS-9</b>	Rat microglia cell line	Dallas, S. et al., The Journal of Pharmacology and experimental Therapeutics, Vol. 307, No. 1, 282-290, 2003
<b>mMHS</b>	Murine macrophage cell line	Customer information/Sarstedt in-house test
<b>MMT 060562</b>	Murine mammary gland cell line	Customer information/Sarstedt in-house test
<b>Monocyte-derived macrophages</b>	Human	Weis, N. et al., Molecular Biology of the Cell , 2009, Vol. 20, 1280–1288
<b>MSC</b>	Mesenchymal stem cell-like cultures from human umbilical cord	Majore, I. et al., Cell Communication and Signaling 2009, 7:6
<b>MSC</b>	Human bone marrow derived mesenchymal stem cells	Shcharbin, D. et al., Pharmaceutics 2011, 3, 458-473
<b>N87</b>	Human gastric carcinoma cell line	Customer information/Sarstedt in-house test
<b>NIH3T3</b>	Murine embryonic fibroblast cell line	Lührig, S. et al., Cell Division 2013, 8:3
<b>NUGC 4</b>	Human gastric carcinoma cell line	Customer information/Sarstedt in-house test
<b>OST</b>	Human osteosarcoma cell line	Customer information/Sarstedt in-house test
<b>OVCAR-3</b>	Human ovary adenocarcinoma cell line	Customer information/Sarstedt in-house test
<b>OVCAR-8</b>	Human ovary adenocarcinoma cell line	Customer information/Sarstedt in-house test
<b>PaCa28</b>	Human pancreatic carcinoma cell line	Customer information/Sarstedt in-house test
<b>PC3</b>	Human prostate adenocarcinoma cell line	Cytarska, J. et al., Acta Poloniae Pharmaceutica ñ Drug Research, Vol. 70 No. 3 pp. 481ñ487, 2013
<b>PC3</b>	Human prostate adenocarcinoma cell line	Tassidis, H. et al., Int. J. Cancer: 126, 2296–2307 (2010)

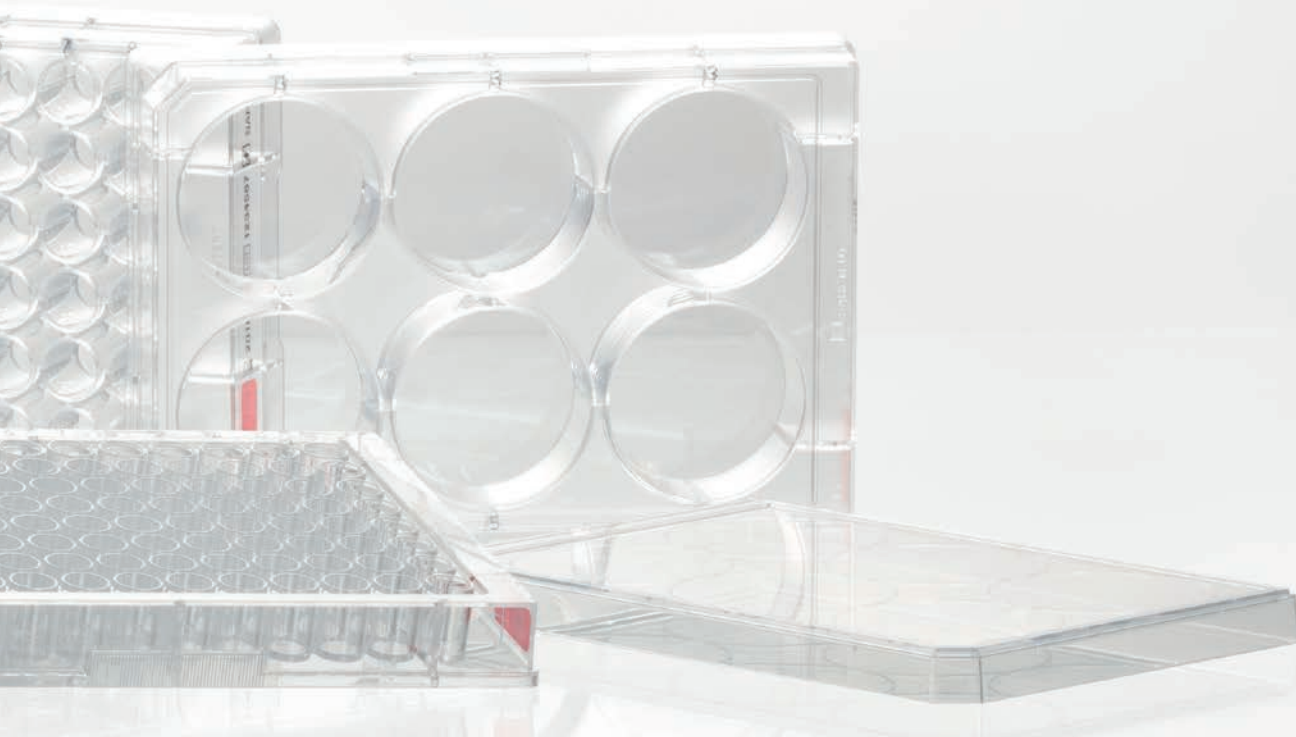


## Cells cultivated on the standard adherent growth surface (red) ■

Name	Description	Literature/Source
<b>Pituitary Cells</b>	Primary rat pituitary cells (single cells & aggregates)	Hauspie, A. et al., <i>Endocrinology</i> 2003, 144(1):388-399
<b>RAW264.7</b>	Murine macrophage cell line	Customer information/Sarstedt in-house test
<b>RGMI#186</b>	Rat non-cancer gastric epithelial cell line	Customer information/Sarstedt in-house test
<b>RLE-6TN</b>	Rat lung epithelial cell line	Customer information/Sarstedt in-house test
<b>RPM18226</b>	Myeloma cell line	Customer information/Sarstedt in-house test
<b>RT112</b>	Human bladder carcinoma cell line	Martinez-Torrecedrada, J. et al., <i>Clin Cancer Res</i> 2005;11:6280-6290
<b>SCC-25</b>	Human squamous cell carcinoma cell line	Mannini, A. et al., <i>British Journal of Nutrition</i> (2009), 102, 958-961
<b>SH-SY5Y</b>	Human neuroblastoma cell line	Boettcher, C. et al., <i>PNAS</i> , 2005, Vol. 102, No. 24, 8495-8500
<b>SK-BR-3</b>	Human breast cancer cell line	Constantini, D. et al., <i>The Journal of Nuclear Medicine</i> , 2008, Vol. 49, No. 9, 1498-1505
<b>SK-Hep-1</b>	Human adenocarcinoma cell line	Customer information/Sarstedt in-house test
<b>SK-MES</b>	Non-small cell lung cancer cell line (squamous cell carcinoma)	Karimi-Busheri, F et al., <i>Multidisciplinary Respiratory Medicine</i> 2013, 8:65
<b>SK-OV-3</b>	Human ovary adenocarcinoma cell line	Customer information/Sarstedt in-house test
<b>SL/SI4</b>	Murine mast cell cell line	Customer information/Sarstedt in-house test
<b>SN12C</b>	Human renal cell carcinoma cell line	Customer information/Sarstedt in-house test
<b>SNB-19</b>	Human glioblastoma cell line	Customer information/Sarstedt in-house test
<b>SOSN2</b>	Rat osteosarcoma cell line	Customer information/Sarstedt in-house test
<b>SP2/O</b>	Mouse myeloma cell line	Customer information/Sarstedt in-house test
<b>STAV-AB</b>	Mesothelioma cell line	Szulkin A, et al., <i>PLoS ONE</i> 2013, Vol. 8 Issue 6, e65903



Name	Description	Literature/Source
<b>STAV-FCS</b>	Mesothelioma cell line	Szulkin A, et al., PLoS ONE 2013, Vol. 8 Issue 6, e65903
<b>SW1116</b>	Human colorectal adenocarcinoma cell line	Customer information/Sarstedt in-house test
<b>SW620</b>	Human colorectal adenocarcinoma (lymph node metastasis) cell line	Customer information/Sarstedt in-house test
<b>SW-900</b>	Non-small cell lung cancer cell line (squamous cell carcinoma)	Karimi-Busheri, F. et al., Multidisciplinary Respiratory Medicine 2013, 8:65
<b>T24</b>	Human urinary bladder carcinoma cell line	Customer information/Sarstedt in-house test
<b>THP-1</b>	Human monocyte cell line	Wollersheim, S. et al., Journal of Interferon & Cytokine Research Volume 32, Number 6, 2012
<b>TOV21</b>	Human ovary adenocarcinoma cell line	Customer information/Sarstedt in-house test
<b>TZM</b>	HeLa cell derivative	Customer information/Sarstedt in-house test
<b>U251</b>	Human glioma cell line	Kaludjerovic, G. et al., Int. J. Cancer: 116, 479–486 (2005)
<b>U251</b>	Human glioma cell line	Isakovic, A. et al., Toxicological Sciences 91(1), 173–183 (2006)
<b>U87 MG</b>	Human glioblastoma cell line	Customer information/Sarstedt in-house test
<b>UACC257</b>	Human melanoma cell line	Customer information/Sarstedt in-house test
<b>UM-UC-3</b>	Human urinary bladder carcinoma cell line	Customer information/Sarstedt in-house test
<b>Vero (1972) P135</b>	African green monkey kidney cell line	Customer information/Sarstedt in-house test
<b>VSa13</b>	Seabream branchial arch cell line (S. aurata)	Marques, C. et al., Cytotechnology (2007) 55:9-13
<b>VSa16</b>	Seabream branchial arch cell line (S. aurata)	Marques, C. et al., Cytotechnology (2007) 55:9-13
<b>VSMC</b>	Rat vascular smooth muscle cell line	Customer information/Sarstedt in-house test
<b>WiDr</b>	Human colorectal adenocarcinoma cell line	Customer information/Sarstedt in-house test
<b>XPA1</b>	Human pancreatic cancer cell line	Customer information/Sarstedt in-house test
<b>ZL-34</b>	Mesothelioma cell line	Szulkin A, et al., PLoS ONE 2013, Vol. 8 Issue 6, e65903



# Reference Library ...

... for cells cultivated on the Cell<sup>+</sup> growth surface (yellow) ■

Name	Description	Literature/Source
<b>AsPC</b>	Human pancreas adenocarcinoma cell line	Customer information/Sarstedt in-house test
<b>ADSC</b>	Adipose-derived human stem cells	Rauch C. et al., Journal of Advanced Biotechnology and Bioengineering, 2014, 2, 1-11
<b>Astrocytes</b>	Primary murine astrocytes	Customer information/Sarstedt in-house test
<b>BCE</b>	Bovine adrenal cortical capillary endothelial cells	Svensson, A. et al., Anticancer Research 25: 207-212 (2005)
<b>BEAS-2B</b>	Human bronchial epithelium cell line	Customer information/Sarstedt in-house test
<b>CHME5</b>	Human microglia cell line	Customer information/Sarstedt in-house test
<b>CHO</b>	Chinese hamster ovary	Customer information/Sarstedt in-house test
<b>Dendritic cells</b>	Derived from monocytes	Customer information/Sarstedt in-house test
<b>Dnmt1 KO/HCT116</b>	Human colon cancer	Customer information/Sarstedt in-house test
<b>Dnmt3b KO/HCT116</b>	Human colon cancer	Customer information/Sarstedt in-house test
<b>Embryonic Bodies</b>	Human embryonic bodies	Hansson, M. et al., Diabetes, Vol. 53, pp. 2603-2609, 2004
<b>FM3A</b>	Murine mammary carcinoma cell line	Customer information/Sarstedt in-house test
<b>HCT116</b>	Human colon cancer cell line	Customer information/Sarstedt in-house test
<b>HEK</b>	Human embryonic kidney cell line	Customer information/Sarstedt in-house test
<b>HEK-293</b>	Human embryonic kidney cell line	Customer information/Sarstedt in-house test
<b>HEK-293T</b>	Human embryonic kidney cell line	Customer information/Sarstedt in-house test
<b>HeLa</b>	Human cervix carcinoma	Customer information/Sarstedt in-house test
<b>HmgB1</b>	Murine fibroblast	Customer information/Sarstedt in-house test
<b>HmgB1 KO C1</b>	Murine fibroblast	Customer information/Sarstedt in-house test
<b>HT1080</b>	Human fibrosarcoma	Customer information/Sarstedt in-house test
<b>HupT3</b>	Human pancreatic carcinoma	Customer information/Sarstedt in-house test
<b>HupT4</b>	Human pancreatic carcinoma	Customer information/Sarstedt in-house test
<b>HUVEC</b>	Human umbilical vein endothelial cells	Anderson, H. et al., Toxicology 262 (2009) 57-64
<b>IMR90</b>	Human fibroblast	Customer information/Sarstedt in-house test
<b>IS-AD-MSC</b>	Mesenchymal stem cells from human adipose tissue	Dave et al., Indian Journal of Endocrinology and Metabolism, 2012 Mar, 16(Suppl1):S65-S69. doi: 10.4103/2230-8210.94264

Name	Description	Literature/Source
<b>J774</b>	Murine reticulum cell sarcoma (monocyte/macrophage) cell line	Customer information/Sarstedt in-house test
<b>L-929</b>	Murine fibroblast cell line (subcutaneous connective tissue)	Customer information/Sarstedt in-house test
<b>LNCap</b>	Human prostate carcinoma cell line	Customer information/Sarstedt in-house test
<b>MBIII</b>	Murine lymphoma cell line	Customer information/Sarstedt in-house test
<b>MDCK</b>	Canine kidney cell line	Customer information/Sarstedt in-house test
<b>Medullary Thyroid Carcinoma</b>	Primary medullary thyroid carcinoma cells	Pfragner, R. et al., Anticancer Research 25: 4225-4230 (2005)
<b>Monocyte-derived macrophages</b>		Customer information/Sarstedt in-house test
<b>Myoblasts</b>		Customer information/Sarstedt in-house test
<b>NIH3T3</b>	Mouse fibroblast	Customer information/Sarstedt in-house test
<b>PA-Tu-8988t</b>	Human pancreas adenocarcinoma cell line	Customer information/Sarstedt in-house test
<b>PC-12</b>	Rat adrenal gland cell line	Customer information/Sarstedt in-house test
<b>PCMO</b>	Human peripheral blood monocytes	Ungefroren H. et al., PLOS ONE, DOI:10.1371/journal.pone.0118097 February 23, 2015
<b>pmi28</b>	Murine primary myoblast cells	Storz, P. et al., FEBS Letters 440 (1998) 41-45
<b>Primary cortical neurons</b>		Customer information/Sarstedt in-house test
<b>RIN-m5f</b>	Rat pancreas cell line	Customer information/Sarstedt in-house test
<b>SH-SY5Y</b>	Human neuroblastoma cell line	Customer information/Sarstedt in-house test
<b>TIF-IA tet off HeLaR4</b>	Human cervix carcinoma	Customer information/Sarstedt in-house test
<b>WI38</b>	Human fibroblast	Customer information/Sarstedt in-house test



# Reference Library ...

... for cells cultivated on the suspension growth surface (green) ■

Name	Description	Literature/Source
<b>164T2</b>	Murine T-cell lymphoma cell line	Mannini, A. et al., British Journal of Nutrition (2009), 102, 958–961
<b>B cell</b>	B cell lymphoma cell line	Gupta, S. et al., The Journal of Pharmacology and Experimental Therapeutics, Vol. 341, No. 1 341:16–23, 2012
<b>CCRF-CEM</b>	Human acute lymphoblastic T-leukemia cell line	Furlong, S. et al., International Journal of Oncology Vol., 32: 537-544, 2008
<b>Chromaffin cells Spheroides</b>	Primary chromaffin adrenal medulla cells	Vukicevic V. et al., Cell Transplantation, Vol. 21, pp. 2471–2486, 2012
<b>CRNK-16</b>	Rat natural killer cell line	Stehling, S. et al., International Immunology, 2004, Vol. 16, No. 1, pp. 101-110
<b>DU145</b>	Human prostate carcinoma cell line	Rybak, A. et al., PLOS ONE, 2013, Vol. 8, Issue 4, e61716
<b>Glioma Spheroids</b>	Human glioma spheroid culture	Ernst, A. et al., Clin. Cancer Res. 2009;15:6541-6550
<b>hfSDSCs</b>	Human fetus skin-derived stem cells	Ge W. et al., Scientific Reports, 5:13822, DOI: 10.1038/srep13822
<b>Hybridoma</b>		Customer information/Sarstedt in-house test
<b>Islet Cells</b>	Primary human pancreatic islet cells	Suarez-Pinzon, W. et al, The Journal of Clinical Endocrinology & Metabolism 2005, 90(6):3401-3409
<b>Jurkat</b>	Human lymphoma cell line	Furlong, S. et al., International Journal of Oncology 32: 537-544, 2008
<b>Jurkat E6.1</b>	Human lymphoma cell line	Ruttekolk, I. et al., Mol Pharmacol 79:692–700, 2011
<b>K-562</b>	Human lymphoma cell line	Customer information/Sarstedt in-house test
<b>Neurosphere culture</b>		Dictus et al., Journal of Neuroscience Methods 161 (2007) 250-258
<b>P815-1-1</b>	Murine mastocytoma cell line	Stehling, S. et al., International Immunology, Vol. 16, No. 1, pp. 101-110
<b>Raji</b>	Human B lymphocytes cell line	Customer information/Sarstedt in-house test
<b>S11</b>	Murine T-cell lymphoma cell line	Customer information/Sarstedt in-house test
<b>S2</b>	Schneider's Drosophila cell line (embryo epithelial)	Clemens, J. et al., PNAS, 2000, Vol. 97, No. 12, 6499-6503
<b>SF2</b>	Rat dental epithelial cells	Customer information/Sarstedt in-house test
<b>Sf9</b>	Fall armyworm ovary cell line	Customer information/Sarstedt in-house test
<b>Spheroides ES-R1 and YC5</b>	Mouse embryonic stem cells	Dang, Gerech-Nir, Chen et al.,STEM CELLS 2004;22:275-282,DOI: 10.1634
<b>U937</b>	Human lymphoma cell line	Customer information/Sarstedt in-house test
<b>YAC-1</b>	Molony virus-induced lymphoma cell line, murine	Stehling, S. et al., International Immunology, 2004, Vol. 16, No. 1, pp. 101-110





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