Luciferase (Firefly and Renilla) Expression Stable Cell Lines

Catalog #	Product	Amount
	HEK293 Host cell line	1 vial of cells (2×10^6 cells) in 90% complete medium, 10% DMSO
SC002-Bsd	Luciferase (**firefly**), **HEK293** stable cells with **blasticidin** antibiotic marker	
SC002-Puro	Luciferase (**firefly**), **HEK293** stable cells with **Puromycin** antibiotic marker	
SC002-Neo	Luciferase (**firefly**), **HEK293** stable cells with **Neomycin** antibiotic marker	
SC002-GB	Luciferase (**firefly**), **HEK293** stable cells with **GFP fluorescent and Blasticidin** antibiotic dual marker	
SC002-GP	Luciferase (**firefly**), **HEK293** stable cells with **GFP fluorescent and Puromycin** antibiotic dual marker	
SC002-RB	Luciferase (**firefly**), **HEK293** stable cells with **RFP fluorescent and Blasticidin** antibiotic dual marker	
SC002-RP	Luciferase (**firefly**), **HEK293** stable cells with **RFP fluorescent and Puromycin** antibiotic dual marker	
SC020-Puro	Luciferase (**Renilla**), **HEK293** stable cells with **Puromycin** antibiotic marker	
SC020-RP	Luciferase (**Renilla**), **HEK293** stable cells with **RFP fluorescent and Puromycin** antibiotic dual marker	
SC021-Puro	Luciferase (**firefly**) and **CRE** recombinase, co-expression stable cell line in **HEH293** cells with **Puromycin** antibiotic marker	
SC021-RP	Luciferase (**firefly**) and **CRE** recombinase, co-expression stable cell line in **HEK293** cells with **RFP fluorescent and Puromycin** antibiotic dual marker	
SC021-GB	Luciferase (**firefly**) and **CRE** recombinase,	

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	co-expression stable cell line in **HEK293** cells with **GFP fluorescent and Blasticidin** antibiotic dual marker	
HeLa Host cell line		
SC032-Bsd	Luciferase (**firefly**), **HeLa** stable cells with **blasticidin** antibiotic marker	
SC032-Puro	Luciferase (**firefly**), **HeLa** stable cells with **Puromycin** antibiotic marker	
SC032-GB	Luciferase (**firefly**) and **GFP** co-expression stable cell line in **HeLa** cells with **Blasticidin** antibiotic dual marker	
SC032-GP	Luciferase (**firefly**) and **GFP** co-expression stable cell line in **HeLa** cells with **Puromycin** antibiotic dual marker	
SC032-GN	Luciferase (**firefly**) and **GFP** co-expression stable cell line in **HeLa** cells with **Neomycin** antibiotic dual marker	
SC032-RN	Luciferase (**firefly**) and **RFP** co-expression stable cell line in **HeLa** cells with **Neomycin** antibiotic dual marker	
SC032-RB	Luciferase (**firefly**) and **RFP** co-expression stable cell line in **HeLa** cells with **Blasticidin** antibiotic dual marker	
SC032-RP	Luciferase (**firefly**) and **RFP** co-expression stable cell line in **HeLa** cells with **Puromycin** antibiotic dual marker	
MDA-MB-231 Host cell line		
SC041	**MDA-MB-231** / Luciferase-2A-**RFP** Stable Cell Line (Blasticidin)	
SC044	**MDA-MB-231** / Luciferase-2A-**GFP** Stable Cell Line (Puromycin)	
A549 Host cell line		
SC043-Luc	**A549** / Luciferase stable cell line (Puromycin)	

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SC043-LG	**A549** / Luciferase-2A-**GFP** stable cell line (Puromycin)	
Jurkat T Cells		
SC048	Jurkat T Cell /Firefly Luciferase (Puromycin) Stable Cell Line	
SC050-L	MCF7 / Firefly Luciferase (Puromycin) Stable Cell Line	
SC051-L	ZR-75-1 / Firefly Luciferase (Puromycin) Stable Cell Line	

Storage: Liquid Nitrogen

Product Description

The **HEK293** Cell Line is a permanent line established from primary embryonic human kidney transformed with sheared human adenovirus type 5 DNA. The expressed E1A adenovirus gene allows these cells to produce very high levels of protein.

The **HeLa** cell line is derived from human cervical cancer cells, and widely used as the host cells for all kinds of biological tests, as it divides an unlimited number of times in a laboratory cell culture plate as long as fundamental cell survival conditions are met.

The **MDA-MB-231** cell line is one of the common human breast cancer cell line, derived from metastatic breast cancer, mammary gland epithelial cells.

The **A549** cell line a human lung epithelial cancer cell line, first developed through culture of lung carcinomatous tissue from a 58-year-old Caucasian male.

The **Jurkat** cells are an immortalized line of human T lymphocyte cells that are used to study acute T cell leukemia, T cell signaling, and the expression of various chemokine receptors susceptible to viral entry, particularly HIV. They are also widely used for the drug screening, signal transduction and immunotherapy model cells.

The **MCF7** is human breast cancer cell line, an epithelial cancer cell line derived from breast adenocarcinoma. It is widely used for *in vitro* breast cancer studies. MCF-7 cells are able to process estrogen in the form of estradiol via estrogen receptors in the cell cytoplasm. This results in the MCF-7 cell line being an estrogen receptor (ER) positive cell line. MCF-7 is also progesterone receptor positive and HER2 negative.

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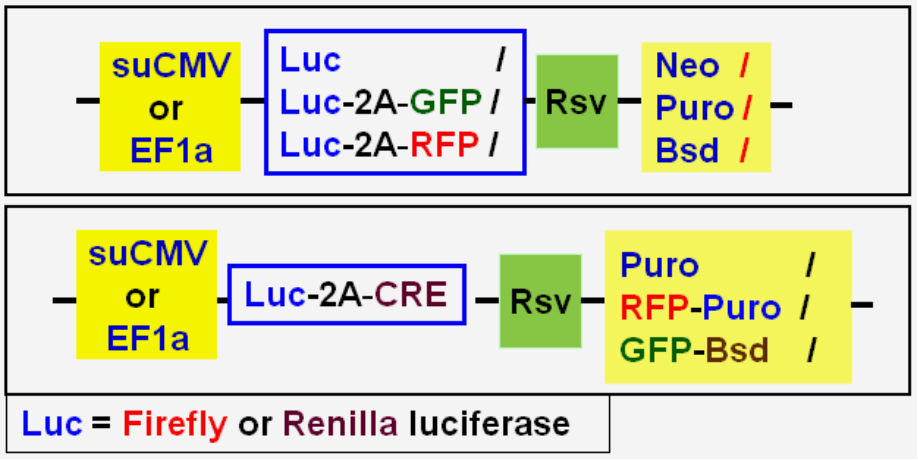
The **ZR-75-1** is an adhesive, human breast epithelial cancer cell line, derived from a malignant ascitic effusion in a 63 year old female Caucasian with infiltrating ductal carcinoma. The cells are reported to express both the wild type and variant estrogen receptors, progesterone receptor and other steroid hormones. It is widely used for *in vitro* breast cancer research.

Luciferase stable cell lines are transformed from the different host cell lines listed above. Each cell line stably expresses a luciferase gene (**firefly luciferase or Renilla luciferase**). The cell lines are established by transduction of luciferase expressing lentivirus with different antibiotic selection marker. The luciferase is constitutively expressed at high level under either a super strong CMV promoter (suCMV) or an enhanced EF1a promoter. When included, a fluorescent protein marker (GFP or RFP) is co-expressed under the same CMV promoter (Note: the fluorescent protein and luciferase are expressed as individual protein, not fusion, mediated by a 2A element). The antibiotic selection marker is expressed under RSV promoter. AMSBIO also provides the stable cell lines expressing both a luciferase and a CRE recombinase with different antibiotic markers. Please see schemes below for the **expression cassette structure** which was integrated into the stable cell line's genome.



Culture procedures

1. Thaw the frozen vial of cells quickly in a 37°C water bath (1-3min), decontaminate the outside of the vial with 70% ethanol.
2. Transfer the entire contents of the cryovial into a T-75 cm^2 flask containing 15 ml of pre-warmed complete medium. Incubate the cells overnight in a 37°C incubator, 5% CO_2.
3. (For adhesive cell type: on the following day, carefully replace the medium with 15 ml of pre-warmed, **complete medium.)**
4. Incubate the cells and monitor cell density.

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5. Passage cells (1:10 dilution) when the culture reaches 80-90% confluency (or 1x10^6 cells/ml for suspension cells).
6. Freeze cells at a density of 2-5 x 10^6 cells/ml using 90% complete medium with 10% DMSO.

Complete medium

Depends on host cell type. Please refer to ATCC website for medium details of each host cell line.

Quality Control

Each vial contains greater than 2 x 10^6 cells with >95% viability before freeze. Cells are tested free of bacteria, viruses, mycoplasma.

Warranty and user terms

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