



Jurkat / GFP Stable Cell Line

CAT#	Product	Amount
SC049-1	Jurkat / GFP Stable Cell (EF1a Promoter)	1 vial of cells (2~8 x 10 ⁶ cells) in c ell freezing medium
SC049-2	Jurkat / GFP Stable Cell (Flt1 Promoter)	
SC049-3	Jurkat / GFP Stable Cell (CD43 Promoter)	
SC049-4	Jurkat / GFP Stable Cell (CD68 Promoter)	
SC049-5	Jurkat / GFP Stable Cell (Survivin Promoter)	

Product Description

Human Jurkat cells are an immortalized line of human T lymphocyte cells originated from human peripheral blood of with T cell leukemia. It is suspension cell culture. It is used to study acute T cell leukemia, T cell signaling, and the expression of various chemokine receptors. And it is also used to determine the mechanism of differential susceptibility of cancers to drugs and radiation as well as immunotherapy.

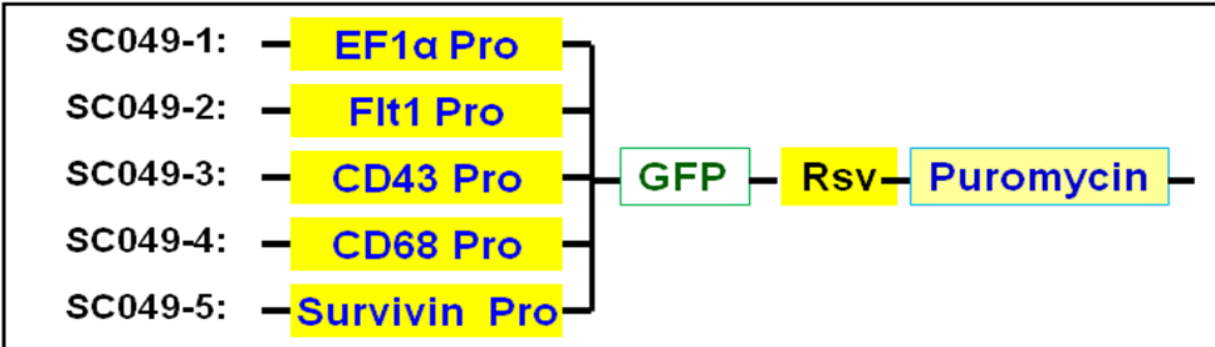
Jurkat / GFP stable cell lines are transformed from with stably expressing the signal-enhanced **GFP** fluorescent reporter. The cell lines were established by transduction with GFP expression lentivirus containing a **Puromycin** antibiotic resistant marker. GFP is constitutively expressed under a constitutive promoter, either the enhance **EF1a** or a native promoter of gene: **Flt1** or **CD43** or **CD68** or **Survivin**. As a result, five Jurkat-GFP cell lines were generated with different GFP expression levels, under five different promoters.

Our enhanced EF1a promoter are strong promoter in all cell types. The native Flt1 promoter is preferably expressed in endothelial, such as tumor vasculature. The CD43's Promoter is preferably expressed in the surface of leukocytes and platelets. The CD68's Promoter is preferably expressed in macrophages and macrophage-related cells. The Survivin's Promoter is over-expressed in most common human cancers.

Jurkat-GFP cell lines are resistant to the puromycin selection marker. The following expression construct was integrated into each cell's genome.

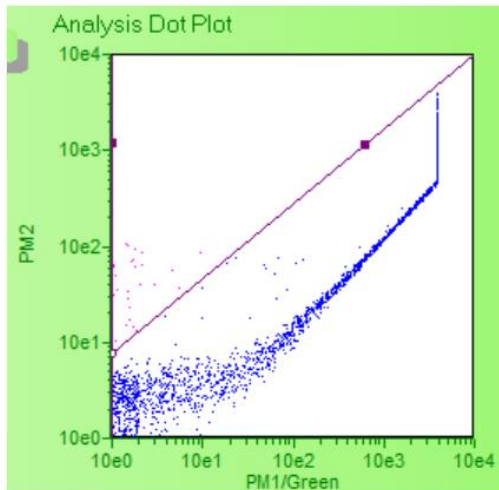
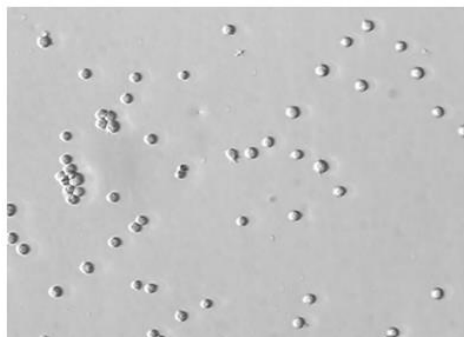
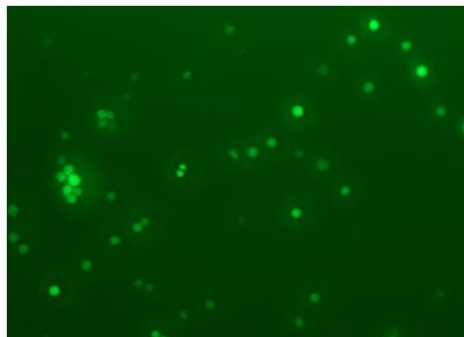


Core expression cassette in Jurkat-GFP cells



The Jurkat-GFP cell lines can be used to generate specific assay cell lines with GFP marker, and used for the pathway research on those specific promoters. It's GFP signal is readily visible under a fluorescent microscope or via FAC machine.

Each cell demonstrates GFP fluorescent signal under microscope (see sample image below. **GFP filter: Ex:490nm / Em:520nm.**). If sorted via FAC, 90% ~ 100% cells are GFP positive depending the assay setting. See sample images below:





Storage

Shipped in dry-ice. Store cell line in liquid nitrogen immediately upon receipt.

Cell recovery and Culture procedures

- Thaw the vial of frozen cells quickly in a 37 °C water bath (1-3min); Remove the vial from the water bath as soon as the contents are thawed (or at the time contents almost fully thawed), decontaminate the outside of the vial with 75% ethanol.
- In Biological safety hood, transfer the entire contents of the vial to a T-75 cm² flask containing 15 ml of pre-warmed complete medium. Incubate the cells in a 37 °C incubator in 5% CO₂ (Do not add puromycin).
- Continue incubate the cells and monitor cell density. (**Note:** the 1st thaw take longer time for cell to recover, need a few days before it is rapidly doubled in one or two days.)
- Pass cells (1:3 dilution) when the culture reaches 1x10⁶ cells/ml.
- After cells have recovered from the 1st passage, the cells will doubled in every 3 ~ 4 days. Now, optionally, you can add 0.1 to 0.5 ug/ml of final puromycin (depend on the puromycin brand). Do not allow the cell density to exceed 3 x 10⁶ cells/ml.
- For frozen re-stock the cells: Spin cell culture at 1500rpm for 5min (Do not exceed 1500 rpm speed), remove the supernatant, resuspended cell pellet in 90% complete medium and 10% DMSO, to a density of 1~5 x 10⁶ cells/ml. Freeze cell vials (1ml/each) in liquid Nitrogen. Cells stored in liquid nitrogen should be stable for years.

Complete medium

RPMI 1640
10% heat-inactivated Fetal Bovine Serum (FBS)
2mM L-Glutamine,
1.5 g/L sodium bicarbonate,
4.5 g/L glucose;
10 mM HEPES
1 mM sodium pyruvate
1% Pen-strep

Quality Control



Each vial contains $\sim 2 \times 10^6$ cells with >95% viability before freezing. Cells are verified to be free of bacteria, viruses, and mycoplasma.

Warranty and user terms

- This product is warranted to perform as described when used in accordance with this manual. GenTarget's sole remedy for breach of warranty should be, at the option of GenTarget, to repair or replace the product if this product does not meet the stated quality standard.
- By paying the purchase price, the buyer is granted a non-transferable, non-exclusive license to use the product. This product is sold **for research and development purposes only**. For commercial use, please contact GenTarget Inc for license.
- This product is limited to the laboratory that the product is delivered to. This Product is not for resale, distribution, or transfer for any purpose, including transfer of the Product as a component of any product(s); GenTarget will retain all rights for this Product's license and other intellectual property.
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- GenTarget is not liable, and does not have any responsibility or liability, whatsoever for any direct and indirect, consequential, or other damages resulting from using this Product.
- GenTarget **do not** provide the protected reporter's sequences information for all our cell line products.

Attachment: GenTarget's pre-made stable cell line list:

Catalog #	Product Name
SC001	HEK293-GFP stable cells
SC002-Bsd	luciferase (firefly), HEK293 stable cells (Blasticidin)
SC002-GB	luciferase (firefly), HEK293 stable cells (GFP-Blasticidin)
SC002-GP	luciferase (firefly), HEK293 stable cells (GFP-Puromycin)



SC002-Neo	luciferase (firefly), HEK293 stable cells (Neomycin)
SC002-Puro	luciferase (firefly), HEK293 stable cells (Puromycin)
SC002-RB	luciferase (firefly), HEK293 stable cells (RFP, Blasticidin)
SC002-RP	luciferase (firefly), HEK293 stable cells (RFP-Puromycin)
SC002T-RP	HEK293T / Luciferase stable cells (RFP-Puromycin)
SC003	LacZ (6His, RFP) / HEK293 Expression stable cell line
SC004-Bsd	CRE Expression / HEK293 Cell Line (Bsd)
SC004-GP	CRE Expression / HEK293 Cell Line (GFP, Puro)
SC004-Neo	CRE Expression / HEK293 Cell Line (Neo)
SC004-Puro	CRE Expression / HEK293 Cell Line (Puro)
SC004-RB	CRE Expression / HEK293 Cell Line (RFP, Bsd)
SC004-RP	CRE Expression / HEK293 Cell Line (RFP, Puro)
SC005-Bsd	HEK293-TetR (Bsd)
SC005-GB	HEK293-TetR (GFP-Bsd)
SC005-Hygro	HEK293-TetR (Hygro)
SC005-Neo	HEK293-TetR (Neo)
SC005-Puro	HEK293-TetR (Puro)
SC005-RB	HEK293-TetR (RFP-Bsd)
SC005-RP	HEK293-TetR (RFP-Puro)
SC006	Flp recombinase Expression HEK293 stable cell
SC007	HEK293-RFP stable cells
SC008	GFP-LacZ & RFP Expression HEK293 Cell Line
SC009	GFP & RFP / HEK293 stable cells
SC010	HEK293-CFP stable cells
SC011	HEK293-YFP stable cells
SC012	TAT Expression / HEK293 Cell Line



SC013	Glutamine Synthetase (6His) Expression HEK293 Cell Line
SC014	human P53 Inducible Expression Cell line
SC015	Human OCT3/4 Expression Stable cells
SC016	Human LIN28 Expression stable cells
SC018-Bsd	Color Switch, CRE report cell line: HEK293-loxP-GFP-RFP (Bsd)
SC018-Neo	Color Switch, CRE report cell line: HEK293-loxP-GFP-RFP (Neo)
SC018-Puro	Color Switch, CRE report cell line: HEK293-loxP-GFP-RFP (Puro)
SC020-Puro	luciferase (Renilla), HEK293 stable cells (Puromycin)
SC020-RP	luciferase (Renilla), HEK293 stable cells (RFP-Puromycin)
SC021-GB	Luciferase (firefly) & CRE Expression cell line (GFP-Bsd)
SC021-Puro	Luciferase (firefly) & CRE Expression stable cell line (Puro)
SC021-RP	Luciferase (firefly) & CRE Expression cell line (RFP-Puro)
SC022-RB	HEK293-CFTR cell line with RFP and Blasticidin dual marker
SC023-RB	HEK293-CLCN2 cell line with RFP and Blasticidin dual marker
SC024-RB	HEK293-TRPC3 cell line with RFP and Puromycin dual marker
SC025-RB	HEK293-KCNN4 cell line with RFP and Puromycin dual marker
SC026-RB	HEK293-ATP2B2 cell line with RFP and Puromycin dual marker
SC027-RB	HEK293-TRPV1 cell line with RFP and Puromycin dual marker
SC028	Inducible RFP HEK293 Expression cell line
SC029	inducible RFP HEK293 stable cell line with GFP marker
SC030	inducible GFP HEK293 stable cell line with RFP marker
SC031-Puro	Hela-RFP Expression Cells
SC032-Bsd	Luciferase (firefly) Expression Hela cells (Bsd)
SC032-GB	Luciferase & GFP Expression Hela cells (Bsd)
SC032-GN	Luciferase & GFP Expression Hela cells (Neo)



SC032-GP	Luciferase & GFP Expression Hela cells (Puro)
SC032-Puro	Luciferase (firefly) Expression Hela cells (Puro)
SC032-RB	Luciferase & RFP Expression Hela cells (Bsd)
SC032-RN	Luciferase & RFP Expression Hela cells (Neo)
SC032-RP	Luciferase & RFP Expression Hela cells (Puro)
SC033	Inducible GFP HEK293 stable cell line
SC034-Bsd	Hela-GFP stable cells (Blasticidin)
SC034-Puro	Hela-GFP stable cells (Puromycin)
SC035-Puro	TetR Expression (Puro) / Hela stable cells
SC036	Inducible GFP Expression Hela cell line
SC037	Inducible RFP Expression Hela cell line
SC038-GB	rtTA (GFP-Bsd) / Hela stable cells
SC038-GP	rtTA (GFP-Puro) / Hela stable cells
SC038-RB	rtTA (RFP-Bsd) / Hela stable cells
SC039-Bsd	CHO-GFP stable cells (Blasticidin)
SC039-Puro	CHO-GFP stable cells (Puromycin)
SC040-Bsd	MDA-MB-231 / GFP (Bsd) Stable Cell Line
SC040-Puro	MDA-MB-231 / GFP (Puro) Stable Cell Line
SC040-TetR	MDA-MB-231 / TetR (Puro) stable cells
SC041	MDA-MB-231 / Luciferase-2A-RFP Stable Cell Line
SC042	SH-SY5Y / GFP (Puromycin) stable cell line
SC043-Bsd	A549 / GFP stable cells (Blasticidin)
SC043-Cas9-GP	A549 / Cas9 (GFP-Puro) Stable Cell Line
SC043-Cas9-Puro	A549 / Cas9 (Puro) Stable Cell Line
SC043-Cas9-RP	A549 / Cas9 (RFP-Puro) Stable Cell Line
SC043-LG	A549 / Luciferase-2A-GFP (Puromycin) stable cell line



SC043-Luc	A549 / Luciferase (Puromycin) stable cell line
SC043-TetR	A549 / TetR (Puro) stable cells
SC044	MDA-MB-231 / Luciferase-2A-GFP Stable Cell Line
SC045-Cas9-Bsd	Hela / Cas9 (Bad) Stable Cell Line
SC046	SH-SY5Y / RFP (Puromycin) stable cell line
SC047-GB	RKO / GFP (Blasticidin) Stable Cell Line
SC047-TetR	TetR Expression (Bsd) / RKO stable cells
SC048	Luciferase (Puro) / Jurkat T Cell line
SC049-1	Jurkat T / GFP Stable Cell (EF1a Promoter)
SC049-2	Jurkat T / GFP Stable Cell (Flt1 Promoter)
SC049-3	Jurkat T / GFP Stable Cell (CD43 Promoter)
SC049-4	Jurkat T / GFP Stable Cell (CD68 Promoter)
SC049-5	Jurkat T / GFP Stable Cell (Survivin Promoter)
SC050-G	MCF7 / GFP (Puromycin) Cell Line
SC050-L	MCF7 / Firefly Luciferase (Puro) Cell Line
SC051-G	ZR-75-1 / GFP (Puromycin) Cell Line
SC051-L	ZR-75-1 / Firefly Luciferase (Puro) Cell Line
SC053-L	NCI-H1299 / Luciferase (Puro) Stable Cells
SC054-L	CFPAC-1 / Luciferase (Puro) Stable Cells
SC055-G	MLLB2 / GFP (Neomycin) stable cell line
SC056-TetR	mouse CT26 / TetR Expression (Bsd) stable cells
SC057-Bsd	MDA-MB-231 / RFP (Bsd) Stable Cell Line
SC058	HEK293 / uGFP (unstable GFP) Stable Cells
SC059-Bsd	MDA-MB-231 / Luciferase (Bsd) Stable Cell Line
SC059-Puro	MDA-MB-231 / Luciferase (Puro) Stable Cell Line
SC060-G	Human B lymphocyte / GFP Stable Cells



SC060-LG	Human B lymphocyte (Luciferase / GFP) Stable Cells
SC060-LR	Human B lymphocyte (Luciferase / RFP) Stable Cells
SC060-R	Human B lymphocyte / RFP Stable Cells
SC061-G	Mouse CT26 / GFP Stable Cells
SC061-LG	Mouse CT26 (Luciferase & GFP) Stable Cells
SC061-LR	Mouse CT26 (Luciferase & RFP) Stable Cells
SC061-PDL1	Mouse CT26 / PDL1 Stable Cells
SC061-R	Mouse CT26 / RFP Stable Cells
SC062-G	Human AsPC1 / GFP Cell Line
SC062-LG	Human AsPC1 / Luciferase and GFP Cell Line
SC062-LR	Human AsPC1 / Luciferase and RFP Cell Line
SC062-Luc	Human AsPC1 / Luciferase Cell Line
SC062-R	Human AsPC1 / RFP Cell Line
SC063-LR	Mouse B lymphocyte (Luciferase & RFP) Stable Cell
SC063-Luc	Mouse B lymphocyte / Luciferase Cell Line
SC063-R	Mouse B lymphocyte / RFP Cell Line
SC064-G	Human HaCAT / GFP (Puro) Cell Line
SC064-TetR	Human HaCAT / TetR (Bsd) Cell Line
SC065-G	Mouse MB49 / GFP Stable Cells
SC065-LG	Mouse MB49 / Luciferase & GFP Stable Cells
SC065-LR	Mouse MB49 / Luciferase & RFP Stable Cells
SC065-R	Mouse MB49 / RFP Stable Cells
SC066-G	Human ES2 / GFP Stable Cells
SC066-LG	Human ES2 / Luciferase & GFP Stable Cells
SC066-LR	Human ES2 / Luciferase & RFP Stable Cells
SC066-R	Human ES2 / RFP Stable Cells



SC066-TetR	Human ES2 / TetR (Puro) Stable Cells
SC067-G	Human SW403 / GFP Stable Cells
SC067-Luc	Human SW403 / Luciferase Stable Cells
SC068-G	Human PANC-1 / GFP (Puro) Cell Line
SC068-LG	Human PANC-1 / Luciferase & GFP (Puro) Cell Line
SC068-Luc	Human PANC-1 / Luciferase (Puro) Cell Line
SC068-R	Human PANC-1 / RFP (Puro) Cell Line
SC069-G	Human 786-O / GFP Cell Line
SC069-LG	Human 786-O / Luciferase & GFP Cell Line
SC069-luc	Human 786-O / Luciferase Cell Line
SC070-G	Hela-nucGFP stable cells
SC070-R	Hela-nucRFP stable cells
SC072-G	Human T47D / GFP Stable Cells
SC072-LG	Human T47D / Luciferase & GFP Stable Cells
SC072-Luc	Human T47D / Luciferase Stable Cells
SC073-GB	Human MCF10A / GFP (Bsd) Stable Cells
SC073-GP	Human MCF10A / GFP (Puro) Stable Cells
SC073-Luc	Human MCF10A / Luciferase (Puro) Stable Cells
SC074-GB	Human SW1990 / GFP (Bsd) Stable Cells
SC074-GP	Human SW1990 / GFP (Puro) Stable Cells
SC074-LG	Human SW1990 / Luciferase & GFP (Puro) Stable Cells
SC074-Luc	Human SW1990 / Luciferase (Puro) Stable Cells
SC017	MDA-MB-231 / niRFP (Puro) Stable Cell Line
SC075	Human ACE2 Expression in Hela Cell Line



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SC076	Human ACE2 Expression in HEK293T Cell Line
SC019	Firefly & Renilla Dual Luciferase Hela Cell Line
SC077	COVID-19 Spike (S) Protein / Hela Cell Line
SC071-Puro	Color Switch, CRE report cell line: Hela-loxP-GFP-RFP (Puro)
SC071-Neo	Color Switch, CRE report cell line: Hela-loxP-GFP-RFP (Neo)