



COVID-19 Spike (S) Protein / Hela Cell Line Product Manual

Catalog Number	Product name	Amount
SC077	COVID-19 Spike (S) Protein / Hela Cell Line	1.0 ml / vial (2~5 million Cells)

Storage: liquid Nitrogen.

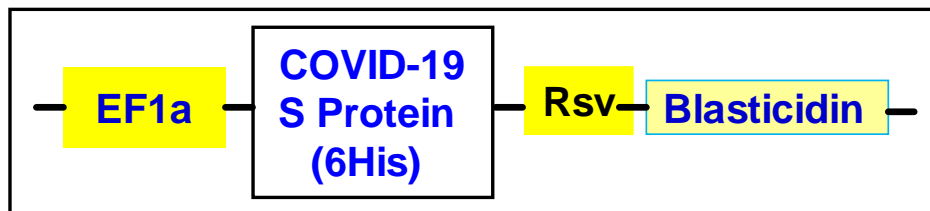
Product Description

Hela cell was derived from human cervical cancer cells. The cell line was found to be remarkably durable, can divide an unlimited number of times in a laboratory cell culture plate as long as fundamental cell survival conditions are met.

The spike protein (S protein) of COVID-19 (SARS-CoV-2) virus is the entry gate to human cells. It binds to human cell surface receptors, [ACE2](#) and [TMPRSS2](#).

This cell line express the human codon optimization [full length S-protein](#) (click to see its Amino Acid sequence) with a poly-histidine tag at the C-terminus (6-His tag) which allow to purify the S-Protein via Ni NTA affinity column. The cell line carry the Blastocidin resistance as selection marker.

The following expression cassette was verified in cell line's genome.



Application:

The cell line can be used to mimic COVID-19 (SARS-CoV-2) in cell-based assays for the COVID-19 detection, vaccine validation, anti-COVID-19 antibody verification, and more.



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 75% ethanol.
2. Transfer the entire contents of the cryovial into a T-75 cm² flask containing 15 ml of pre-warmed complete medium. Incubate the cells overnight in a 37°C incubator, 5% CO₂.
3. The following day, replace the medium with 15 ml of pre-warmed, complete medium.
4. Incubate the cells and monitor cell density.
5. Pass cells (1:10 dilution) when the culture reaches 80-90% confluent.
6. Freeze cells at a density of 3×10^6 cells/ml using 90% complete medium with 10% DMSO or cell recovery medium.

Complete medium

MEM medium
2mM L-glutamine
10% Fetal Bovine Serum (FBS)
0.1 mM MEM Non-Essential Amino Acids (NEAA)
1% Pen-strep or 1x of Antibiotic-Antimycotic

Optionally for long term culture to maintain cell line's genetic stability, you can add Blasticidin antibiotic in the medium at the final concentration as 10 ug/ml. Do not add Blasticidin at the 1st time thaw.

Quality Control

Each vial contains about 3×10^6 cells with >95% viability before freeze. Cells are tested free of bacteria, viruses, mycoplasma.

Warranty and user terms

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

Catalog #	Product Name
TLV-C	HEK293-TLV lentivirus packing cells
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
SC017	MDA-MB-231 / niRFP (Puro) Stable Cell Line
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)
SC019	Firefly & Renilla Dual Luciferase Hela Cell Line
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 Blastocidin dual marker
SC023-RB	HEK293-CLCN2 cell line with RFP and Blastocidin 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 (Bsd) Stable Cell Line
SC045-Cas9-Puro	Hela / Cas9 (Puro) 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
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
SC071-Neo	Color Switch, CRE report cell line: Hela-loxP-GFP-RFP (Neo)
SC071-Puro	Color Switch, CRE report cell line: Hela-loxP-GFP-RFP (Puro)
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
SC075	Human ACE2 (RFP) Expression in Hela Cell Line
SC076	Human ACE2 (RFP) Expression in HEK293T Cell Line
SC076B	Human ACE2 (GFP) Expression in Hela Cell Line
SC077	COVID-19 Spike (S) Protein / Hela Cell Line
SC078-G	Mouse Panc02 / GFP Stable Cell Line
SC078-Luc	Mouse Panc02 / Luciferase (Firefly) Stable Cell Line
SC079-G	Human MIA Paca-2 / GFP Stable Cells
SC079-LG	Human MIA Paca-2 / Luciferase & GFP Stable Cells
SC079-LR	Human MIA Paca-2 / Luciferase & RFP Stable Cells
SC079-Luc	Human MIA Paca-2 / Luciferase Stable Cells
SC079-R	Human MIA Paca-2 / RFP Stable Cells
SC080-G	Human HT-29 / GFP Stable Cell Line
SC080-LG	Human HT-29 / GFP & Luciferase Stable Cell Line
SC080-Luc	Human HT-29 / Luciferase (Firefly) Stable Cell Line
SC081	Inducible GFP & Luciferase Co-Expression HEK293 cell line
SC082	HEK293 / Cas9 Expression Stable Cell Line
SC083	HEK293 / h PDL1 Expression Stable Cells
SC084-G	Human U2OS / GFP Stable Cells
SC084-LG	Human U2OS / Luciferase & GFP Stable Cells



SC084-Luc	Human U2OS / Luciferase Stable Cells
SC085-LG	Human SHP-77 / Luciferase & GFP Stable Cells
SC085-LR	Human SHP-77 / Luciferase & RFP Stable Cells
SC085-Luc	Human SHP-77 / Luciferase Stable Cells
SC085-R	Human SHP-77 / RFP Fluorescent Stable Cells
SC086	CHO / CD19 & GFP Expression Stable Cell Line
SC087	HEK293 / human CD19 Expression Stable Cell Line