Human PANC-1Reporter Cell Lines

Catalog Number	Product Name	Amount
SC068-G	Human PANC-1/ GFP Cell Line	1.0 ml / vial (3-5 x 10^6 cells) in 90% complete medium, 10% DMSO
SC068-R	Human PANC-1/ RFP Cell Line	
SC068-Luc	Human PANC-1/ Luciferase Cell Line	
SC068-LG	Human PANC-1/ Luciferase and GFP Cell Line	

Product Description

The Human **PANC-1** is a human pancreatic cancer cell line isolated from a pancreatic carcinoma of ductal cell origin, of a 56-year-old Caucasian male. PANC-1 cells have an epithelial morphology and are adherent in cell culture flasks, take 52 hours to double in population. PANC-1 cells tend to clump.

PANC-1 cells are used to study the role of keratin reorganization during the migration of cancer cells, along with calcium-mediated actin reset in response to physiological changes.

We have generated four signal reporter cell lines from the human PANC-1 host cells, transformed by lentivirus transduction, carrying a **Puromycin**-resistance. Each cell line stably expresses the firefly luciferase (**Luc**), or a fluorescent reporter (**GFP** or **RFP**), or co-expresses firefly luciferase and **GFP** fluorescent dual reporters (**Luc** / **GFP**), mediated by the 2A element under the same **EF1a** promoter.

The reporter cell lines can be tracked in vivo by fluorescent signal / chemiluminescence, providing convenient tools for studying the mechanisms of tumor growth and metastasis, and as the therapeutic model for evaluating various treatment effects in animal.

The reporter is constitutively expressed at high-levels under the enhanced EF1a promoter. The expression cassette was integrated into cell's genome (see the scheme below).

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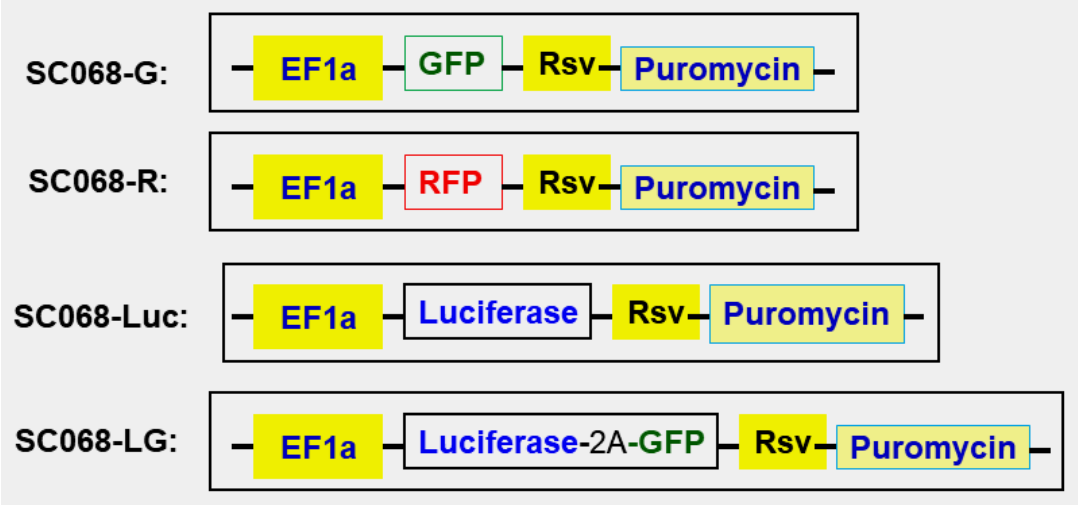
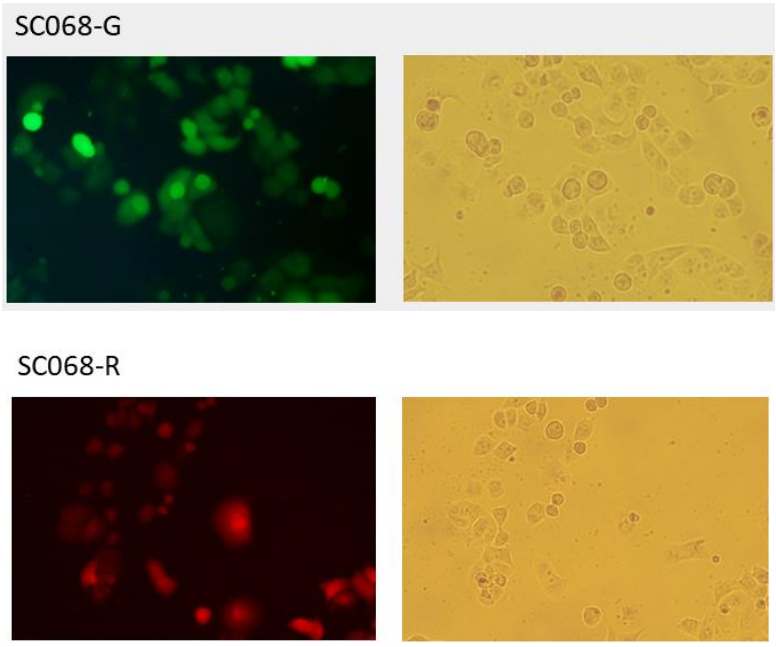


The GFP or RFP fluorescent signal can be visualized under fluorescent-microscope, at filter wavelength of Ex/EM: 460nm/ 525nm (GFP) or 575nm / 610nm (RFP), respectively. (See sample image below).

Note: This cell line is the pool of multiple cell clones and the fluorescent signal intensity may be different among cells.



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In case of **SC068-LG** and **SC068-LR** cell lines, the cells express both fluorescent reporter and the firefly luciferase whose signal can be detected, *in vitro* and *in vivo*, by luciferase assay via the D-luciferin substrate.

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 20 ml of pre-warmed complete medium. Incubate the cells overnight in a 37°C incubator, 5% CO_2.
3. The following day, replace the medium with 20 ml of prewarmed, complete medium.
4. Incubate the cells and monitor cell density.
5. Passage cells (1:2 to 1:4 dilution) using 0.25% Trypsin-EDTA solution when the culture reaches >50% confluent.
6. Freeze cells at a density of ~3 x 10^6 cells/ml using 90% complete medium with 10% DMSO.

Complete medium

DEM Medium
10% FBS
1 % Non Essential Amino Acids
2 mM Glutamine
1x Antibiotic-Antimycotic
(culture at 37°C with 5% CO_2)

- Optional to add: final **1.0 µg/ml** of Puromycin (Note: do not add puromycin after 1st thaw of cells. The final Puromycin concentration also depends on the potency of puromycin)

Quality Control

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

Warranty and user terms

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