

MCF7 / GFP Stable Cell Line

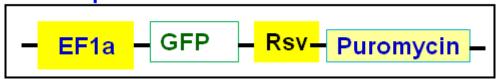
Catalog Number	Amount	Storage
	1 vial of cells (1.0 ml / 2 x 10 ⁶ cells) in 90%	Liquid nitrogen
<u>SC050-G</u>	complete medium and 10% DMSO	

Product Description

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 is 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.

The MCF7 / GFP reporter cell line was transformed from the MCF7 cell line, and stably expresses the fluorescent enhanced GFP marker. The line was established by transduction with GFP expression lentivirus containing a Puromycin-resistance gene (under RSV promoter) for selection the stable cells. The GFP is constitutively expressed at high-levels under the enhanced EF1a promoter. The following expression construct was integrated into cell's genome.

Core expression cassette for SC050-G:



Culture procedures

- Thaw the vial of frozen cells quickly in a 37°C water bath (1-3min); decontaminate the outside of the vial with 70% ethanol.
- 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.
- Incubate the cells and monitor cell density.
- Passage cells (1:5 dilution) when the culture reaches 80-90% confluence.
- Freeze cells at a density of 1-3 x 10⁶ cells/ml using 90% complete medium with 10% DMSO.

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Complete medium

- MEM medium (ThermoFisher Cat#: 11090073)
- 2mM L-glutamine
- 10% FBS
- 0.1 mM Non-Essential Amino Acid (NEAA);
- 1 mM sodium pyruvate;
- 1% penicillin/streptomycin (or 1% Antibiotic/antmycotic);
- 10 ug/ml bovine insulin (opitonal)
- 0.625 ug/ml of Puromycin (optional)

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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