

Product data sheet

MIA PaCa-2/GFP-luciferase stable cell line

Catalog Number: CL-1544

Storage: Liquid nitrogen

Components: 1 vial contains $\sim 2 \times 10^6$ cells in Cell freezing medium

Product description

MIA PaCa-2/GFP-luciferase cells are derived from the human pancreas carcinoma MIA PaCa-2 cell line by stably integration of a constitutive GFP and Firefly luciferase expression construct. MIA PaCa-2 cell line has been widely used in cancer research and drug development. MIA PaCa-2/GFP-luciferase cells stably express GFP and Firefly luciferase, can be used for in vitro assays and in vivo imaging.

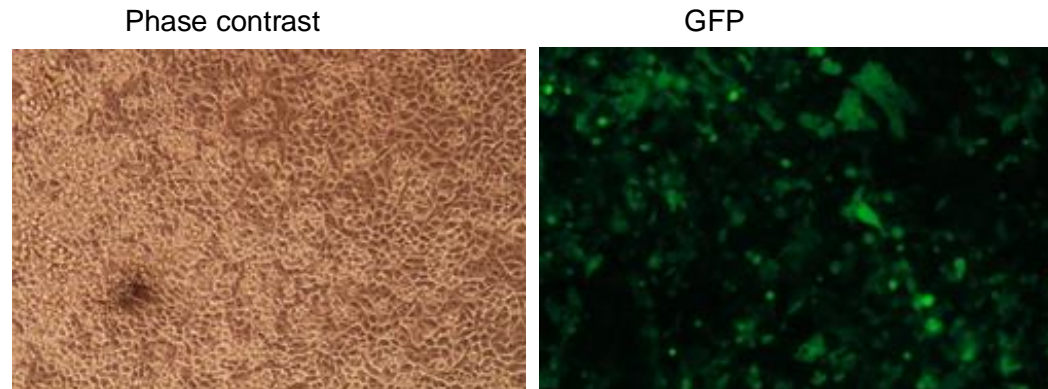


Figure 1. GFP expression in MIA PaCa-2/GFP-luciferase stable cell line

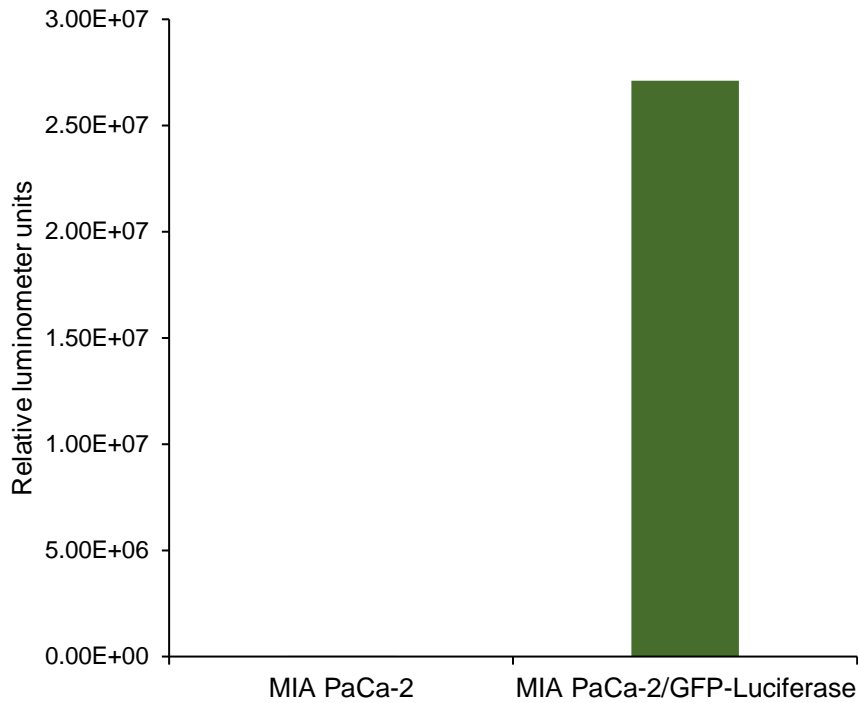


Figure 2. Firefly luciferase expression in MIA PaCa-2/GFP-luciferase stable cell line
The luminescence intensity of ~5000 cells was detected by Bright-Glo™ luciferase Assay System (Promega, Cat E2610).

Cell line description

Organism: Homo sapiens (human)

Tissue: Pancreas

Cell Type: epithelial cell

Morphology: attached epithelial with floating rounded cells

Culture Properties: adherent

Disease: Carcinoma

Biosafety Level: 2

Medium

1. Complete culture medium: DMEM with 10% fetal bovine serum (FBS)
1 µg/mL of puromycin may be added to the culture medium. **Puromycin should not be added until a culture has been well established from the thawed cells.**
2. Freeze medium: FBS with 6% DMSO

Culture procedure

Thawing of frozen cells

1. Thaw the frozen cryovial by gentle agitation in a 37 °C water bath in 1-2 minutes.

2. Remove the cryovial from the water bath as soon as the contents are thawed, and decontaminate by wiping with 70% ethanol.
3. Transfer the thawed cell suspension to a centrifuge tube containing 10 ml of Complete culture medium, centrifuge at 500 g for 5 minutes.
4. Remove the medium by aspiration, resuspend the cells with 10 ml of the Complete culture medium by gently pipetting up and down.
5. Transfer the cells to a 10 cm cell culture dish.
6. Place the cells in a 37°C incubator with 5% CO₂.

Sub-culturing

Volumes are given for a 10 cm cell culture dish. Increase or decrease the amount of dissociation medium needed proportionally.

1. Remove the medium by aspiration.
2. Briefly rinse the cell layer with 1xDPBS to remove all traces of serum that contains trypsin inhibitor.
3. Add 1 ml of Trypsin-EDTA (0.25%) solution to the dish and observe cells under an inverted microscope until cell layer is dispersed.
4. Add 4 ml of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels. Incubate cultures at 37°C with 5% CO₂.