FenicsBIO

Product data sheet

DU145/GFP-luciferase stable cell line

Catalog Number: CL-1519

Storage: Liquid nitrogen

Components: 1 vial contains ~2 x10^6 cells in Cell freezing medium

Product description

DU145/GFP-luciferase cells are derived from the human prostate cancer cell line DU145 by stably integration of a constitutive GFP and Firefly luciferase stably expression construct. DU145 cells represent an aggressive and androgen-independent form of prostate cancer, which is often resistant to standard hormone-based therapies. DU145 cell line has been used as a model for identifying the molecular mechanisms underlying prostate cancer progression and metastasis, as well as potential therapeutic targets for the treatment of advanced prostate cancer. DU145/GFP-luciferase cells stably express GFP and Firefly luciferase, can be used for *in vitro* assays and *in vivo* imaging.

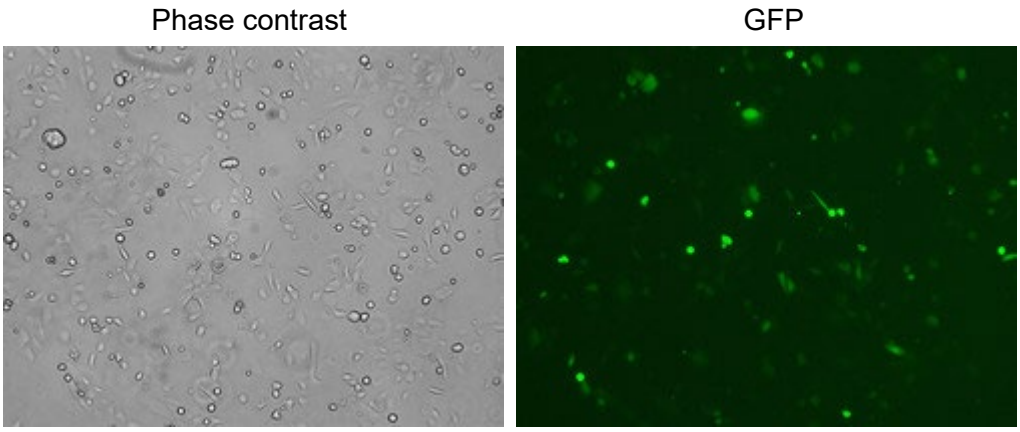

Figure 1. GFP expression in DU145/GFP-luciferase stable cell line

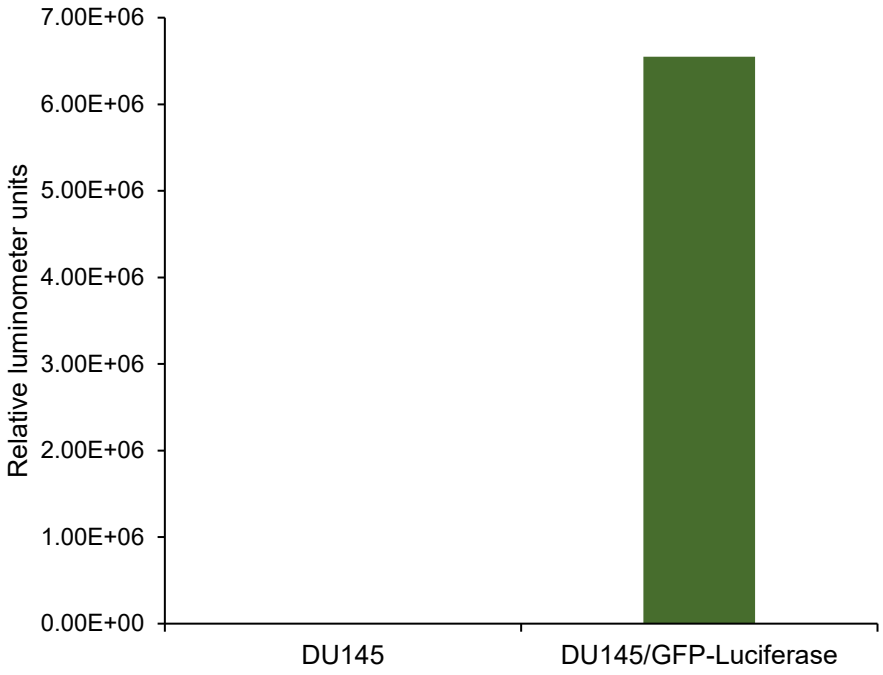

Figure 2. Firefly luciferase expression in DU145/GFP-Luciferase stable cell line.
The luminescence intensity of ~5000 cells was detected by Bright-Glo™ luciferase Assay System (Promega, Cat E2610).

Cell line description

Organism: *Homo sapiens* (human)
Tissue: Prostate
Morphology: epithelial
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.