

Product data sheet

THP-1/Luciferase stable cell line

Catalog Number: CL-1639

Storage: Liquid nitrogen

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

Product description

THP-1/Luciferase cells are derived from the human monocytic THP-1 cell line by stably integration of a constitutive Firefly luciferase expression construct. The THP-1 cell line is widely used to study the function of monocytes and macrophages, as well as in leukemia research. THP-1/Luciferase cells stably express firefly luciferase, can be used for *in vitro* assays and *in vivo* imaging.

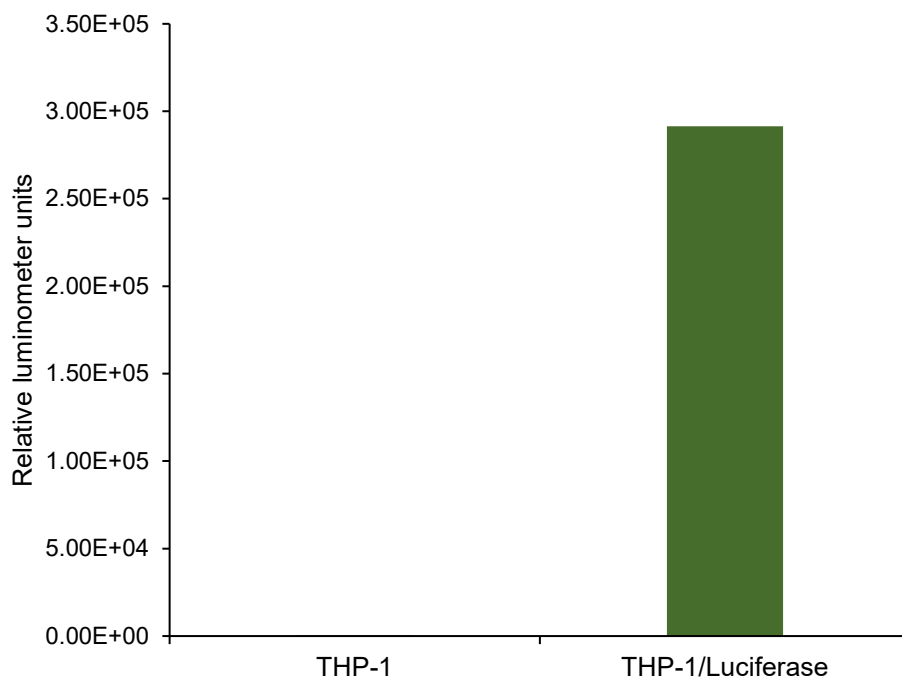


Figure 1. Firefly luciferase expression in THP-1/Luciferase stable cell line.

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: Peripheral blood

Cell Type: monocyte

Morphology: monocyte

Culture Properties: Suspension

Disease: Acute monocytic leukemia

Biosafety Level: 2

Medium

1. Complete culture medium: RPMI-1640, 0.05 mM 2-mercaptoethanol, 10% fetal bovine serum (FBS)
0.5 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: Fetal bovine serum (FBS), 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 2 ml of the Complete culture medium by gently pipetting up and down.
5. Transfer the cells to a T-25 suspension cell culture flask.
6. Place the cells in a 37°C incubator with 5% CO₂.

Sub-culturing

Cultures can be maintained by the addition of fresh medium. Alternatively, cultures can be established by centrifugation with subsequent resuspension at 2 to 4 x 10⁵ viable cells/ml. Do not allow the cell density to exceed 1 x 10⁶ cells/ml.

Renew or add fresh medium every 2-3 days.