FenicsBIO

Product data sheet

Jurkat/RFP stable cell line

Catalog Number CL-1140

Storage: Liquid nitrogen

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

Product description

Jurkat/RFP cells are derived from the human immortalized T lymphocyte Jurkat cell line by stably integration of a constitutive RFP expression construct. Jurkat cells have been used to study acute T cell leukemia, T cell signaling, and the expression of various chemokine receptors susceptible to viral entry, particularly HIV. Jurkat/RFP cells stably express RFP, can be used for *in vitro* assays and *in vivo* imaging.

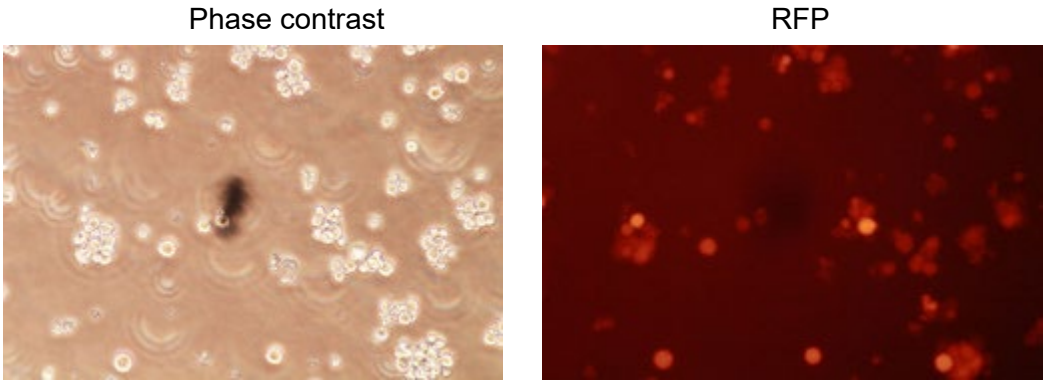

Figure 1. RFP expression in Jurkat/RFP stable cell line.

Cell line description

Organism: Homo sapiens (human)

Tissue: Peripheral blood

Cell Type: T lymphoblast

Morphology: Lymphoblast

Culture Properties: Suspension

Disease: Acute T cell leukemia

Biosafety Level: 2

Medium

1. Complete culture medium: RPMI-1640, 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 or replacement of medium. Alternatively, cultures can be established by centrifugation with subsequent resuspension at 1 x 10^5 viable cells/ml. Maintain cell density between 1 x 10^5 and 1 x 10^6 viable cells/ml. Do not allow the cell density to exceed 3 x 10^6 cells/ml.

Renew or add fresh medium every 2-3 days.