

Datasheet for Dual-labeled 4T-1 Cancer Cell Line

Catalog Number: SL020

Product: Luciferase/GFP dual-labeled 4T-1 cancer cell line

Description: This product is a dual-labeled stable pool in the designated cell type. This stable cell line expresses firefly luciferase and eGFP simultaneously. This cell line can be used *in vitro* for cancer cell line research or *in vivo* to establish orthotopic or subcutaneous tumor models. Tumor growth can be measured before tumors are palpable. It also allows for the monitoring of early tumor development or the direct measurement of tumor growth and metastases *in vivo*.

Quantity: 1 vial of 2x10⁶ cells; frozen

Shipping Conditions: Dry ice

Storage Conditions: Liquid nitrogen vapor phase. Remove the item from the dry ice packaging and check all items for damage and leakage. Place immediately into storage at or below -140 °C, preferably into the liquid nitrogen vapor phase until use.

Transgene Integration:



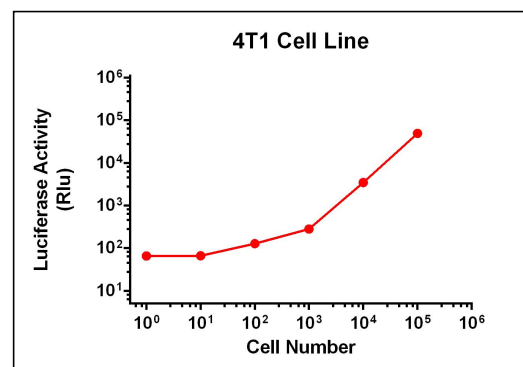
Source of Parental line:

4T-1
Organism *Mus musculus, mouse*
Tissue mammary gland
Cell Type epithelial
Pathology This tumor is an animal stage IV human breast cancer

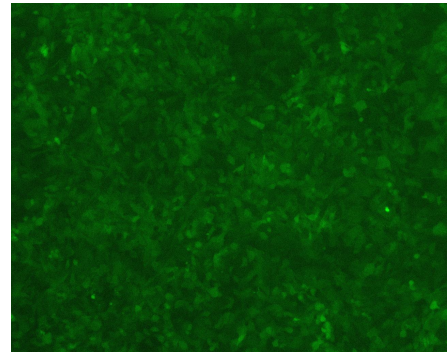
Quality Control: >95% viability before freeze. All cells were tested and found to be free of mycoplasma, bacteria, viruses, and other toxins.

Luciferase Activity:

Serial dilutions of 4T-1 dual-labeled cells were plated into a 96-well plate (white well). The luciferase activity was tested using GeneCopoeia™ Luc-Pair™ Firefly Luciferase HS Assay Kit (LF007).



GFP Fluorescence: Image of 4T-1 dual-labeled cell line SL020. The image was taken at 90% confluence using a Nikon fluorescent microscope under objective power and a 1 sec exposure time.



Safety Instructions: To ensure safety, protective gloves, clothing and a face mask should be worn when handling frozen vials. Some leakage may occur into the vial during storage. The liquid nitrogen will be converted to gas upon thawing. Due to the nature of nitrogen gas, pressure may build within the vial and possibly result in the vial exploding or losing its cap. This may cause flying debris.

Thawing procedure: The vial of cells should be thawed in a 37 °C water bath with gentle agitation. For optimal performance, the vial should be thawed in under two minutes. Ensure that the cap of the vial did not loosen upon thawing and re-tighten as needed. Spray the vial with 70 % EtOH and wipe off. Repeat. Using aseptic technique, add the contents of the vial to 9 mL of complete growth medium (without selection). Centrifuge for 5 min at 125 x g. Aspirate the media, being careful not to disturb the pellet. Resuspend in 10 mL of complete growth medium and place into a culture vessel of your choice. Only add selection to the media after 24 h in culture.

Culture condition:

Complete Growth Medium

The base medium for this cell line is RPMI-1640 Medium. For optimal growth and maintenance of selection, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

Selection: Puromycin to a final concentration of 1µg/mL

Culture temperature: 37 °C with 5% CO₂



Subculture: Cultures can be maintained by the addition or replacement of fresh medium. Start new cultures at 1×10^5 viable cells/mL. Subculture at 1×10^6 cells/mL.

Cryopreservation: Freeze slowly in complete growth medium supplemented with 5% (v/v) DMSO

Citation of product: If use of this item results in a publication, please use this information: Dual-labeled stable 4T-1(SL020; Genecopoeia, Inc, Rockville, MD).

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DLSCL-DS-072522

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