T47D/GFP Cell Line

CATALOG NUMBER: AKR-208

STORAGE: Liquid nitrogen
Note: For best results begin culture of cells immediately upon receipt. If this is not possible, store at -80ºC until first culture. Store subsequent cultured cells long term in liquid nitrogen.

QUANTITY & CONCENTRATION: 1 mL, 1 x 10^6 cells/mL in 70% DMEM, 20% FBS, 10% DMSO

Background

The T-47 line was isolated in 1979 from a pleural effusion obtained from a 54 year old female patient with an infiltrating ductal carcinoma of the breast. This differentiated epithelial cell line was found to contain cytoplasmic junctions and receptors to 17 beta estradiol, other steroids and calcitonin. These cells exhibit epithelial morphology and form monolayers in culture . The cell line has abundant activity in both the Boyden chamber chemoinvasion and chemotaxis assay. The T47D cell line is also able to grow on agarose, an indicator of transformation and tumorigenicity, and displays a relatively high colony forming efficiency.
Our T47D/GFP cell line stably expresses GFP; the gene was introduced using lentivirus.

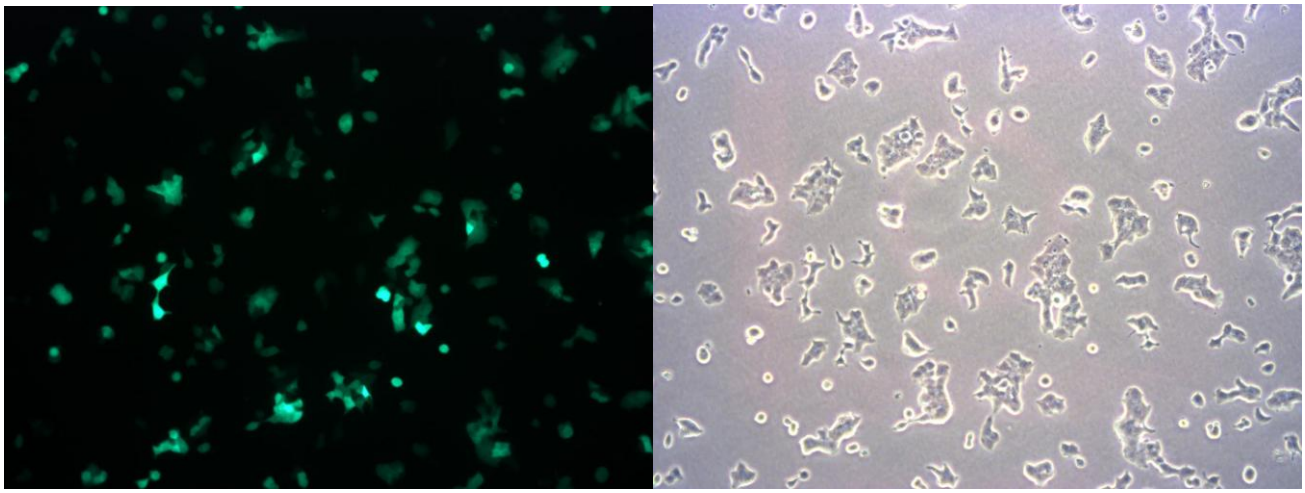

Figure 1. T47D/GFP Cell Line. Left: GFP Fluorescence; Right: Phase Contrast.

Quality Control

This cryovial contains at least 1.0 × 10^6 T47D/GFP cells as determined by morphology, trypan-blue dye exclusion, and viable cell count. The T47D/GFP cells are tested free of microbial contamination.

Medium

1. Culture Medium: D-MEM (high glucose), 10% fetal bovine serum (FBS), 0.1 mM MEM Non-Essential Amino Acids (NEAA), 2 mM L-glutamine, 1% Pen-Strep.

2. Freeze Medium: 70% DMEM, 20% FBS, 10% DMSO.

Methods

Establishing T47D/GFP Cultures from Frozen Cells

1. Place 10 mL of complete DMEM growth medium in a 50-mL conical tube. Thaw the frozen cryovial of cells within 1–2 minutes by gentle agitation in a 37°C water bath. Decontaminate the cryovial by wiping the surface of the vial with 70% (v/v) ethanol.
2. Transfer the thawed cell suspension to the conical tube containing 10 ml of growth medium.
3. Collect the cells by centrifugation at 1000 rpm for 5 minutes at room temperature. Remove the growth medium by aspiration.
4. Resuspend the cells in the conical tube in 15 mL of fresh growth medium by gently pipetting up and down.
5. Transfer the 15 mL of cell suspension to a T-75 tissue culture flask. Place the cells in a 37°C incubator at 5% CO2.
6. Monitor cell density daily. Cells should be passaged when the culture reaches 95% confluence.

Recent Product Citations

1. Funakoshi-Tago, M. et al. (2020). Coffee decoction enhances tamoxifen proapoptotic activity on MCF-7 cells. *Sci Rep*. **10**(1):19588. doi: 10.1038/s41598-020-76445-z.
2. Boutin, M.E. et al. (2018). A high-throughput imaging and nuclear segmentation analysis protocol for cleared 3D culture models. *Sci Rep*. **8**(1):11135. doi: 10.1038/s41598-018-29169-0.

Warranty

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