HeLa/GFP Cell Line

CATALOG NUMBER: AKR-213

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

HeLa cells are the most widely used cancer cell lines in the world. These cells were taken from a lady called Henrietta Lacks from her cancerous cervical tumor in 1951 which today is known as the HeLa cells. These were the very first cell lines to survive outside the human body and grow. Both GFP and blasticidin-resistant genes are introduced into parental HeLa cells using lentivirus.

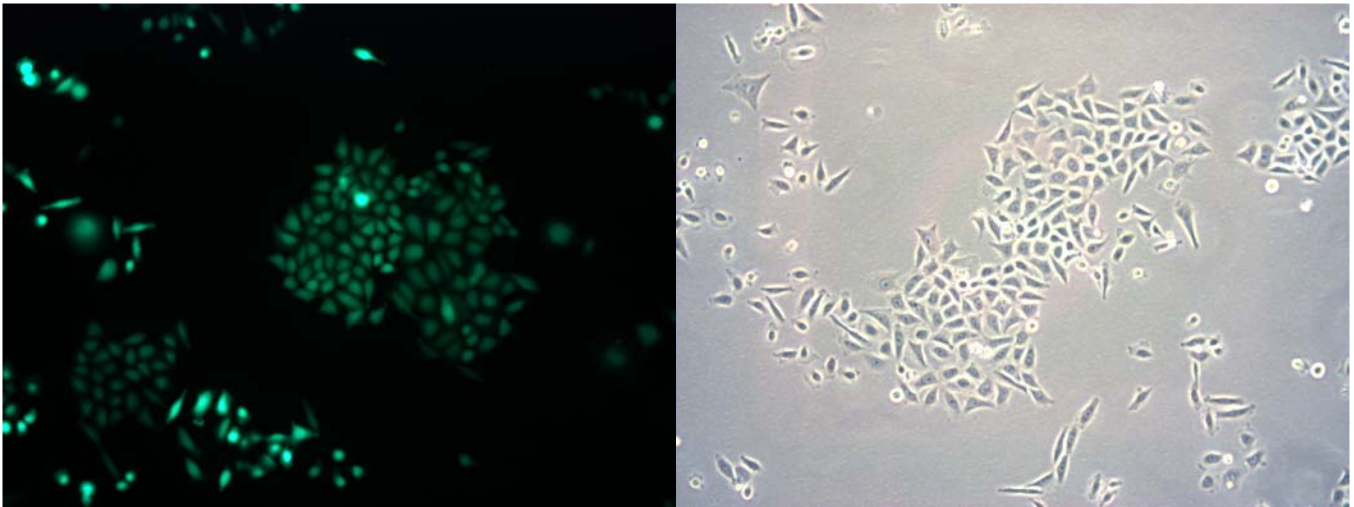

Figure 1. HeLa/GFP Cell Line. Left: GFP Fluorescence; Right: Phase Contrast.

Quality Control

This cryovial contains at least 1.0×10^6 HeLa/GFP cells as determined by morphology, trypan-blue dye exclusion, and viable cell count. The HeLa/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, (optional) 10 µg/mL Blasticidin.
2. Freeze Medium: 70% DMEM, 20% FBS, 10% DMSO.

Methods

Establishing HeLa/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

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3. Du, X. et al. (2017). In situ generated D-peptidic nanofibrils as multifaceted apoptotic inducers to target cancer cells. *Cell Death Dis*. **8**(2):e2614. doi: 10.1038/cddis.2016.466.
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12. Weerakkody, D. et al. (2013). Family of pH (low) Insertion Peptides for Tumor Targeting. *PNAS*. **110**:5834-5839.

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