OVCAR- 5/RFP Cell Line

CATALOG NUMBER: AKR-254

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

OVCAR-5 is a human epithelial carcinoma cell line of the ovary, established from the ascitic fluid of a patient with progressive ovarian adenocarcinoma without prior cytotoxic treatment. The unique growth pattern of ovarian carcinoma makes it an ideal model for examining the anticancer drug activity. With epithelial-like morphology, OVCAR-5 has abundant activity in both the Boyden chamber chemotaxis and invasion assay. The OVCAR-5 cell line is also able to grow in soft agar, an indicator of transformation and tumorigenicity, and displays a relatively high colony forming efficiency. *In vivo*, OVCAR-5 cells can form moderately well-differentiated adenocarcinoma consistent with ovarian primary cells. Our OVCAR-5/RFP cell line stably expresses RFP and Puromycin resistant genes that were introduced using lentivirus.

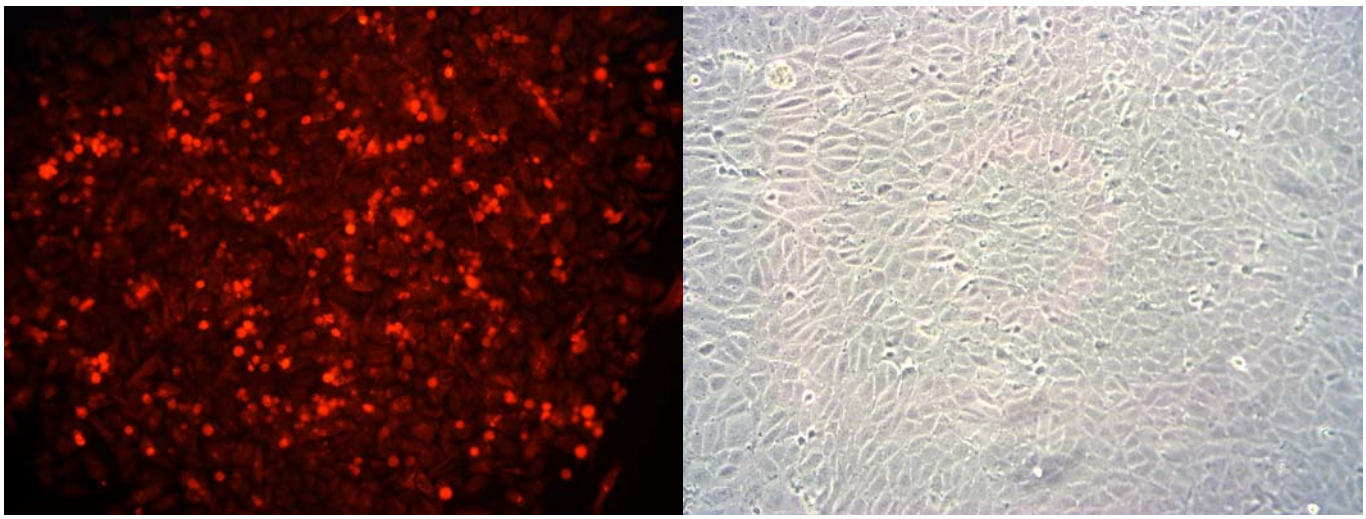

Figure 1. OVCAR-5/RFP Cell Line. Left: RFP Fluorescence; Right: Phase Contrast.

Quality Control

This cryovial contains at least 1.0 × 10^6 OVCAR-5/RFP cells as determined by morphology, trypan-blue dye exclusion, and viable cell count. The OVCAR-5/RFP cells are tested free of microbial contamination.

Medium

1. Culture Medium: D-MEM (high glucose) or McCoy's 5A, 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 or McCoy's 5A, 20% FBS, 10% DMSO.

Methods

Establishing OVCAR-5/RFP 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 Citation

Kramer, D. et al. (2016). Strong antitumor synergy between DNA crosslinking and HSP90 inhibition causes massive premitotic DNA fragmentation in ovarian cancer cells. *Cell Death Differ*. doi:10.1038/cdd.2016.124.

Warranty

This product is for RESEARCH USE ONLY; not for use in diagnostic procedures.

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