abcam

Product datasheet

Human RB1CC1 (FIP200) knockout A549 cell line ab277823

Overview

Product name	Human RB1CC1 (FIP200) knockout A549 cell line
Parental Cell Line	A549
Organism	Human
Passage number	<20
Biosafety level	1
General notes	**Recommended control:** Human wild-type A549 cell line (ab275463). Please note a wild-type cell line is not automatically included with a knockout cell line order, if required please add recommended wild-type cell line at no additional cost using the code WILDTYPE-TMTK1. **Cryopreservation cell medium:** Cell Freezing Medium-DMSO Serum free media, contains 8.7% DMSO in MEM supplemented with methyl cellulose. **Culture medium:** F-12K + 10% FBS **Initial handling guidelines:** Upon arrival, the vial should be stored in liquid nitrogen vapor phase and not at -80ºC. Storage at -80ºC may result in loss of viability. 1. Thaw the vial in 37ºC water bath approximately 1-2 minutes. 2. Transfer the cell suspension (0.8 ml) to a 15 ml/50 ml conical sterile polypropylene centrifuge tube containing 8.4 ml pre-warmed **culture medium**, wash vial with an additional 0.8 ml **culture medium** (total volume 10 ml) to collect remaining cells, and centrifuge at 201 *x g* (rcf) for 5 minutes at room temperature. 10 ml represents minimum recommended dilution. 20 ml represents maximum recommended dilution. 3. Resuspend the cell pellet in 5 ml pre-warmed **culture medium** and count using a haemocytometer (Click here to view haemocytometer protocol) or alternative cell counting method. Based on cell count, seed cells in an appropriate cell culture flask at a density of $2x10^4$ cells/cm^2. This should allow for confluency within 48 hours. Seeding density is given as a guide only and should be scaled to align with individual lab schedules. 4. Incubate the culture at 37ºC incubator with 5% CO_2. Cultures should be monitored daily. **Subculture guidelines:** All seeding densities should be based on cell counts gained by established methods. A guide seeding density of $2x10^4$ cells/cm^2 is recommended for confluency (80-90% confluence) within 48 hours. A partial media change 24 hours prior to subculture may be helpful to encourage growth, if required. Cells should be passaged when they have achieved 80-90% confluence.

Click here to view the Mammalian cell tissue culture protocol

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Properties

Number of cells	1 x 10^6 cells/vial, 1 mL
Viability	~90%
Adherent /Suspension	Adherent
Tissue	Lung
Cell type	epithelial
Disease	Carcinoma
Gender	Male
Mycoplasma free	Yes
Storage instructions	Shipped on Dry Ice. Store in liquid nitrogen.
Storage buffer	Constituents: 8.7% DMSO, 2% Cellulose, methyl ether

Target

Function	Implicated in the regulation of RB1 expression. Functions as a DNA-binding transcription factor. Is a potent regulator of the RB1 pathway and a mediator that plays a crucial role in muscular differentiation. Expression is, thus, a prerequisite for myogenic differentiation. Involved in autophagy. Required for autophagosome formation.
Tissue specificity	Expression levels correlated closely with those of RB1 in cancer cell lines as well as in various normal human tissues. Abundantly expressed in human musculoskeletal and cultured osteosarcoma cells.
Developmental stage	Expression was difficult to detect in immature proliferating chondroblasts or myogenic cells in embryos, but became obvious and prominent concomitantly with the maturation of osteocytes, chondrocytes, and skeletal muscle cells. Expression in these musculoskeletal cells increased with RB1 expression, which is linked to the terminal differentiation of many tissues and cells. The introduction of the wild-type protein decreased the formation of macroscopic colonies in a cell growth assay.
Cellular localization	Nucleus. Cytoplasm > cytosol. Preautophagosomal structure. Under starvation conditions, is localized to puncate structures primarily representing the isolation membrane that sequesters a portion of the cytoplasm resulting in the formation of an autophagosome.

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