abcam

Product datasheet

Human RB1CC1 (FIP200) knockout A549 cell line ab277823

1 Image

Overview

Product name	Human RB1CC1 (FIP200) knockout A549 cell line
Parental Cell Line	A549
Organism	Human
Passage number	<20
Knockout validation	Next Generation Sequencing (NGS)
Tested applications	**Suitable for:** Next Generation Sequencing
Biosafety level	1
General notes	Although we aim to provide customers with a homozygous clone, feasibility will be dependent on the biology of the protein. Should only heterozygous edits be achieved, you will be notified of the outcome and be asked to confirm whether the cell line is acceptable. All clones will be accompanied with DNA sequencing data, and the mutation description. **Recommended control**: Human wild-type A549 cell line (**ab288558**). 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 -80°C. Storage at -80°C may result in loss of viability. 1. Thaw the vial in 37°C water bath for 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 or alternative cell counting method. Based on cell count, seed cells in an

appropriate cell culture flask at a density of 2x103-1x10^4 cells/cm2. Seeding density is given as a guide only and should be scaled to align with individual lab schedules.
4. Incubate the culture at 37°C incubator with 5% CO2. 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 6x10^4 cells/cm2 is recommended.
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.
Do not allow the cell density to exceed 7x10^4 cells/cm2.
This product is subject to limited use licenses from The Broad Institute and ERS Genomics Limited, and is developed with patented technology. For full details of the limited use licenses and relevant patents please refer to our **limited use license** and **patent pages**.

We will provide viable cells that proliferate on revival.

Properties

Number of cells	1 x 10^6 cells/vial, 1 mL
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% Dimethylsulfoxide, 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 (By similarity). Inhibits PTK2/FAK1 and PTK2B/PYK2 activity and activation of downstream signaling pathways.
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.

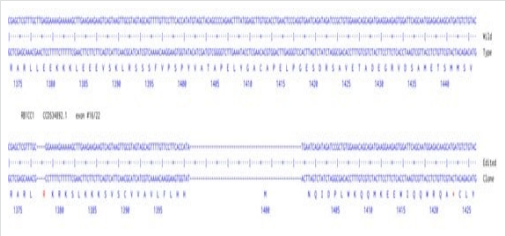
Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab277823 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Next Generation Sequencing		Use at an assay dependent concentration.

Images



Next Generation Sequencing - Human RB1CC1 (FIP200) knockout A549 cell line (ab277823)

4 bp deletion after Leu1377, 51 bp deletion downstream.

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