abcam

Product datasheet

# Human ZC3HAV1 (Zinc finger antiviral protein) knockout A549 cell line ab266951

3 Images

## Overview

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|---|---|
| **Product name** | Human ZC3HAV1 (Zinc finger antiviral protein) knockout A549 cell line |
| **Parental Cell Line** | A549 |
| **Organism** | Human |
| **Mutation description** | Knockout achieved by using CRISPR/Cas9, 1 bp insertion in exon 4 and 2 bp insertion in exon 4 |
| **Passage number** | <20 |
| **Knockout validation** | Sanger Sequencing |
| **Biosafety level** | 2 |
| **General notes** | **Recommended control:** Human wild-type A549 cell line (**ab255450**). 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.<br><br>**Cryopreservation cell medium:** Cell Freezing Medium-DMSO Serum free media, contains 8.7% DMSO in MEM supplemented with methyl cellulose.<br><br>**Culture medium:** F-12K + 10% FBS<br><br>**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.<br><br>1. Thaw the vial in 37°C water bath for approximately 1-2 minutes.<br>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.<br>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 $2x10^3$-$1x10^4$ cells/$cm^2$. Seeding density is given as a guide only and should be scaled to align with individual lab schedules.<br>4. Incubate the culture at 37°C incubator with 5% $CO_2$. Cultures should be monitored daily.<br><br>**Subculture guidelines:**<br><br>All seeding densities should be based on cell counts gained by established methods.<br>A guide seeding density of $6x10^4$ cells/$cm^2$ is recommended.<br>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 exceed $7x10^4$ cells/$cm^2$.
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We will provide viable cells that proliferate on revival.

## Properties

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| **Number of cells** | $1 \times 10^6$ cells/vial, 1 mL |
| **Adherent /Suspension** | Adherent |
| **Tissue** | Lung |
| **Cell type** | epithelial |
| **Disease** | Carcinoma |
| **Gender** | Male |
| **STR Analysis** | Amelogenin X,Y D5S818: 11 D13S317: 11 D7S820: 8, 11 D16S539: 11, 12 vWA: 14 TH01: 8,9.3 TPOX: 8,11 CSF1PO: 10, 12 |
| **Mycoplasma free** | Yes |
| **Storage instructions** | Shipped on Dry Ice. Store in liquid nitrogen. |
| **Storage buffer** | Constituents: 8.7% Dimethylsulfoxide, 2% Cellulose, methyl ether |

## Target

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| **Function** | Induces an innate immunity to viral infections by preventing the accumulation of viral RNAs in the cytoplasm. Seems to recruit the RNA processing exosome to degrade the target RNAs. Inhibits alphavirus and filovirus replication. |
| **Sequence similarities** | Contains 4 C3H1-type zinc fingers.<br>Contains 1 PARP catalytic domain.<br>Contains 1 WWE domain. |
| **Domain** | The second and fourth zinc fingers are involved in binding to specific viral RNAs. |
| **Cellular localization** | Cytoplasm. Nucleus. Localizes in the cytoplasm at steady state, but shuttles between nucleus and cytoplasm in a XPO1-dependent manner. |

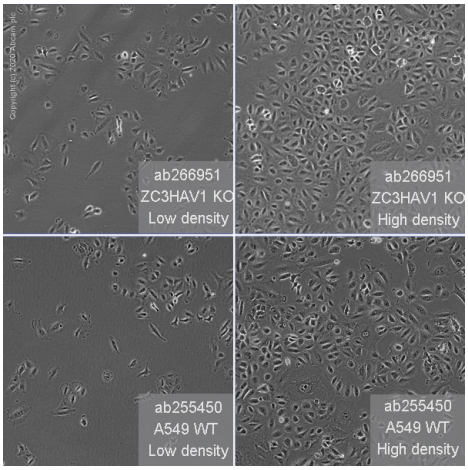
## Images


Sanger Sequencing - Human ZC3HAV1 knockout A549 cell line (ab266951)

Allele-1: 1 bp insertion in exon4


Sanger Sequencing - Human ZC3HAV1 knockout A549 cell line (ab266951)

Allele-2: 2 bp insertion in exon 4.




Cell Culture - Human ZC3HAV1 (Zinc finger antiviral protein) knockout A549 cell line (ab266951)

Representative images of ZC3HAV1 knockout A549 cells, low and high confluency examples (top left and right respectively) and wild-type A549 cells, low and high confluency (bottom left and right respectively) showing typical adherent, epithelial-like morphology. Images were captured at 10X magnification using a EVOS XL Core microscope.

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