

# Human MAP2K7 (MKK7) knockout A549 cell line ab266914

1 Image

### Overview

<b>Product name</b>	Human MAP2K7 (MKK7) knockout A549 cell line
<b>Parental Cell Line</b>	A549
<b>Organism</b>	Human
<b>Mutation description</b>	Knockout achieved by using CRISPR/Cas9, Homozygous: 1 bp insertion in exon 6
<b>Passage number</b>	<20
<b>Knockout validation</b>	Sanger Sequencing, Western Blot (WB)
<b>Tested applications</b>	<b>Suitable for:</b> WB
<b>Biosafety level</b>	2
<b>General notes</b>	<p><b>Recommended control:</b> Human wild-type A549 cell line (<a href="#">ab255450</a>). 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.</p> <p><b>Cryopreservation cell medium:</b> Cell Freezing Medium-DMSO Serum free media, contains 8.7% DMSO in MEM supplemented with methyl cellulose.</p> <p><b>Culture medium:</b> F-12K + 10% FBS</p> <p><b>Initial handling guidelines:</b> 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.</p> <ol style="list-style-type: none"> <li>1. Thaw the vial in 37°C water bath for approximately 1-2 minutes.</li> <li>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.</li> <li>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 <math>2 \times 10^3</math>-<math>1 \times 10^4</math> cells/cm<sup>2</sup>. Seeding density is given as a guide only and should be scaled to align with individual lab schedules.</li> <li>4. Incubate the culture at 37°C incubator with 5% CO<sub>2</sub>. Cultures should be monitored daily.</li> </ol> <p><b>Subculture guidelines:</b></p> <p>All seeding densities should be based on cell counts gained by established methods. A guide seeding density of <math>6 \times 10^4</math> cells/cm<sup>2</sup> is recommended.</p>

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  $7 \times 10^4$  cells/cm<sup>2</sup>.

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We will provide viable cells that proliferate on revival.

## Properties

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<b>Number of cells</b>	1 x 10 <sup>6</sup> cells/vial, 1 mL
<b>Adherent /Suspension</b>	Adherent
<b>Tissue</b>	Lung
<b>Cell type</b>	epithelial
<b>Disease</b>	Carcinoma
<b>Gender</b>	Male
<b>STR Analysis</b>	Amelogenin X,YD5S818: 11 D13S317: 11 D7S820: 8, 11 D16S539: 11, 12 WWA: 14 TH01: 8,9.3 TPOX: 8,11 CSF1PO: 10, 12
<b>Antibiotic resistance</b>	Puromycin 1.00µg/ml
<b>Mycoplasma free</b>	Yes
<b>Storage instructions</b>	Shipped on Dry Ice. Store in liquid nitrogen.
<b>Storage buffer</b>	Constituents: 8.7% Dimethylsulfoxide, 2% Cellulose, methyl ether

## Target

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<b>Function</b>	Stress activated, dual specificity kinase that activates the JUN kinases MAPK8/JNK1, MAPK9/JNK2 and MAPK10/JNK3.
<b>Tissue specificity</b>	Ubiquitous; with highest level of expression in skeletal muscle. Isoform 3 is found at low levels in placenta, fetal liver, and skeletal muscle.
<b>Sequence similarities</b>	Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase subfamily. Contains 1 protein kinase domain.
<b>Post-translational modifications</b>	Activated by phosphorylation on Ser/Thr.
<b>Cellular localization</b>	Nucleus. Cytoplasm.

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## Applications

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**The Abpromise guarantee** Our [Abpromise guarantee](#) covers the use of ab266914 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
WB		Use at an assay dependent concentration. Predicted molecular weight: 47 kDa.

## Images

Mut	CTCATGGGCACCTGCGCTGAGAAGCTCAAGGAAGCGGATGCAGGGCCCCATCCCCGAGCG
WT	CTCATGGGCACCTGCGCTGAGAAGCTCAAG AAGCGGATGCAGGGCCCCATCCCCGAGCG
Sanger Sequencing - Human MAP2K7 knockout A549 cell line (ab266914)	

Homozygous: 1 bp insertion in exon6

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