

Product datasheet

Human MAP3K7 (TAK1) knockout HEK-293T cell pellet ab278834

[2 Images](#)

Overview

Product name	Human MAP3K7 (TAK1) knockout HEK-293T cell pellet
Product overview	<p>Abcam's knockout cell pellets give you access to native proteins, without the need to culture cells. Our knockout cell pellets are prepared from our single-gene knockout cell lines and provide an additional offering to our cell lysates.</p> <p>Cells are snap-frozen to provide high quality pellets that are suitable for extraction with alternative lysis buffers or for preparation of lysates from subcellular fractions. Our knockout cell pellets are suitable for a variety of applications, including PCR, gene expression profiling and DNA library preparation.</p>
Parental Cell Line	HEK293T
Organism	Human
Mutation description	Knockout achieved by using CRISPR/Cas9, Homozygous: 2 bp insertion in exon 6.
Passage number	<20
Knockout validation	Sanger Sequencing, Western Blot (WB)
Notes	<p>Pellet size: 5 million cells/vial.</p> <p>This product is subject to limited use licenses from The Broad Institute, ERS Genomics Limited and Sigma-Aldrich Co. LLC, and is developed with patented technology. For full details of the licenses and patents please refer to our limited use license and patent pages.</p>
Tested applications	Suitable for: WB

Properties

Storage instructions Store at -80°C. Please refer to protocols.

Components	1 kit
Human MAP3K7 knockout HEK293T cell pellet	1 vial
ab286211 - Human wild-type HEK293T cell pellet	1 vial

Cell type epithelial

STR Analysis Amelogenin X D5S818: 8, 9 D13S317: 12, 14 D7S820: 11 D16S539: 9, 13 vWA: 16, 19 TH01: 7, 9.3 TPOX: 11 CSF1PO: 11, 12

Target

Function Component of a protein kinase signal transduction cascade. Mediator of TRAF6 and TGF-beta signal transduction. Activates IKBKB and MAPK8 in response to TRAF6 signaling. Stimulates NF-kappa-B activation and the p38 MAPK pathway. In osmotic stress signaling, plays a major role in the activation of MAPK8/JNK, but not that of NF-kappa-B.

Sequence similarities Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase kinase subfamily.
Contains 1 protein kinase domain.

Post-translational modifications Association with TAB1/MAP3K7IP1 promotes autophosphorylation and subsequent activation. Association with TAB2/MAP3K7IP2, itself associated with free unanchored Lys-63 polyubiquitin chain, promotes autophosphorylation and subsequent activation of MAP3K7. Dephosphorylation at Thr-187 by PP2A and PPP6C leads to inactivation.
Ubiquitinated, leading to proteasomal degradation (By similarity). Requires 'Lys-63'-linked polyubiquitination for autophosphorylation and subsequent activation. 'Lys-63'-linked ubiquitination does not lead to proteasomal degradation. Deubiquitinated by CYLD, a protease that selectively cleaves 'Lys-63'-linked ubiquitin chains. Deubiquitinated by Y.enterocolitica YopP.

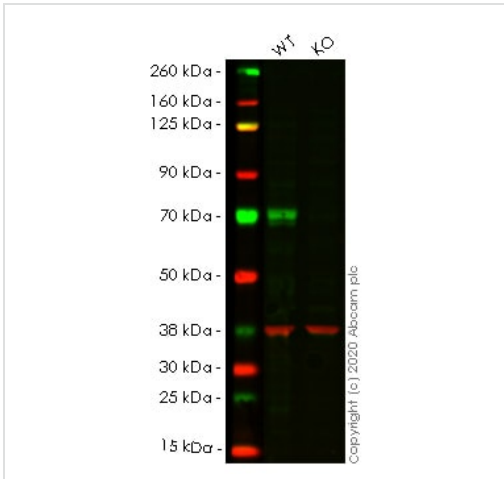
Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab278834 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: 67 kDa.

Images



Western blot - Human MAP3K7 (TAK1) knockout HEK293T cell pellet (ab278834)

Lane 1: Wild-type HEK-293T cell lysate (20µg)

Lane 2: MAP3K7 knockout HEK-293T cell lysate (20µg)

Lanes 1- 2: Merged signal (red and green). Green - [ab109526](#) observed at 72 kDa. Red - loading control [ab8245](#) observed at 37 kDa.

[ab109526](#) Anti-TAK1 antibody [EPR5984] was shown to specifically react with TAK1 in wild-type HEK-293T cells in western blot. Loss of signal was observed when knockout cell line [ab266555](#) (knockout cell lysate [ab256984](#)) was used. Wild-type and TAK1 knockout samples were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. [ab109526](#) and Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) were incubated overnight at 4 °C at 1 in 1000 and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed ([ab216776](#)) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Sanger Sequencing - Human MAP3K7 (TAK1) knockout HEK293T cell pellet (ab278834)

Homozygous: 2 bp insertion in exon 6

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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