



Phospho-MAP2K1 (T292) Antibody

Product Code	CSB-RA013409A292phHU
Abbreviation	Dual specificity mitogen-activated protein kinase kinase 1
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q02750
Immunogen	A synthesized peptide derived from Human Phospho-MAP2K1 (T292)
Species Reactivity	Human
Tested Applications	ELISA, WB; Recommended dilution: WB:1:500-1:5000
Relevance	<p>Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. Binding of extracellular ligands such as growth factors, cytokines and hormones to their cell-surface receptors activates RAS and this initiates RAF1 activation. RAF1 then further activates the dual-specificity protein kinases MAP2K1/MEK1 and MAP2K2/MEK2. Both MAP2K1/MEK1 and MAP2K2/MEK2 function specifically in the MAPK/ERK cascade, and catalyze the concomitant phosphorylation of a threonine and a tyrosine residue in a Thr-Glu-Tyr sequence located in the extracellular signal-regulated kinases MAPK3/ERK1 and MAPK1/ERK2, leading to their activation and further transduction of the signal within the MAPK/ERK cascade. Depending on the cellular context, this pathway mediates diverse biological functions such as cell growth, adhesion, survival and differentiation, predominantly through the regulation of transcription, metabolism and cytoskeletal rearrangements. One target of the MAPK/ERK cascade is peroxisome proliferator-activated receptor gamma (PPARG), a nuclear receptor that promotes differentiation and apoptosis. MAP2K1/MEK1 has been shown to export PPARG from the nucleus. The MAPK/ERK cascade is also involved in the regulation of endosomal dynamics, including lysosome processing and endosome cycling through the perinuclear recycling compartment (PNRC), as well as in the fragmentation of the Golgi apparatus during mitosis.</p>
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Alias	Dual specificity mitogen-activated protein kinase kinase 1, MAP kinase kinase 1, MAPKK 1, MKK1, ERK activator kinase 1, MAPK/ERK kinase 1, MEK 1, MAP2K1, MEK1, PRKMK1
Immunogen Species	Homo sapiens (Human)

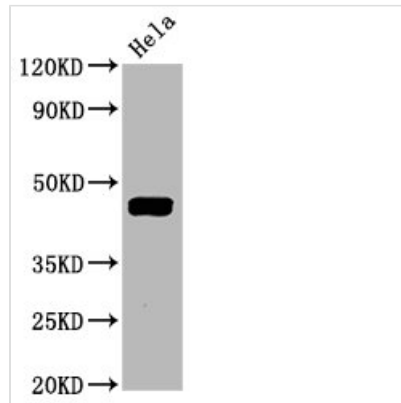


Research Area Signal Transduction

Gene Names MAP2K1

Accession NO. 4E7

Image



Western Blot

Positive WB detected in HeLa whole cell lysate

All lanes Phospho-MAP2K1 antibody at

1.645 μ g/ml

Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 45 KDa

Observed band size: 45 KDa

Description

CUSABIO designed the vector clones for the expression of a recombinant MAP2K1 antibody in mammalian cells. The vector clones were obtained by inserting the MAP2K1 antibody heavy and light chains into the plasma vectors. The recombinant MAP2K1 antibody was purified from the culture medium through affinity-chromatography. It can be used to detect MAP2K1 protein from Human in the ELISA, WB.

The phospho-MAP2K1 (T292) antibody can detect the MAP2K1 only when phosphorylated at T292. MAP2K1, also called MEK1, functions immediately upstream of MAPK in the MAPK signaling pathway. Phosphorylation of T292 on MAP2K1 by activated ERK is required for the formation of ternary complex PTEN/MAGI1/MAP2K1. MAP2K1 mutations have been found in several human malignancies, particularly melanoma, hairy cell leukemia, and lung adenocarcinoma.