
Product Name: KD-Validated Mitogen-Activated Protein Kinase 1 Recombinant Rabbit Monoclonal Antibody

Catalog #: KVA00809

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 41.4kDa

Antigen Information

Gene Name	MAPK1
Alternative Names	MAPK1; Mitogen-Activated Protein Kinase 1; ERK2; Extracellular Signal Regulated Kinase 2; P41mapk; MAPK; PRKM1; PRKM2; ERK; Mitogen-Activated Protein Kinase 2; MAP Kinase 1; MAP Kinase 2; EC 2.7.11.24; P42-MAPK; MAPK 2; ERK-2; ERT1; Protein Tyrosine Kinase ERK2; MAP Kinase Isoform P42; EC 2.7.11; P42MAPK; MAPK 1; NS13; P38; P40; P41
Gene ID	5594.0
SwissProt ID	P28482
Immunogen	A synthesized peptide derived from human ERK2

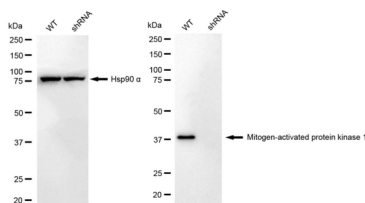
Background

This gene encodes a member of the MAP kinase family. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. The activation of this kinase requires its phosphorylation by upstream kinases. Upon activation, this kinase translocates to the nucleus of the stimulated cells, where it phosphorylates nuclear targets. One study also suggests that this protein acts as a transcriptional repressor independent of its kinase activity. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. Two alternatively spliced transcript variants encoding the same protein, but differing in the UTRs, have been reported for this gene. [provided by RefSeq, Jan 2014]

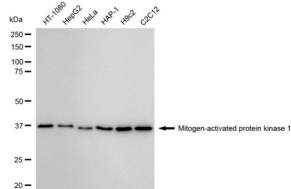
Research Area

Neuroscience,Signal Transduction,Stem Cells

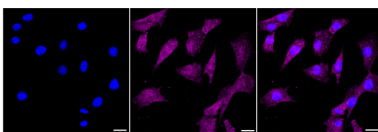
Image Data



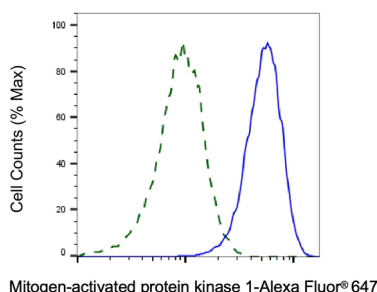
Western blotting analysis using mitogen-activated protein kinase 1 antibody (KVA00809). Mitogen-activated protein kinase 1 expression in wild-type (WT) and mitogen-activated protein kinase 1 (MAPK1) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with mitogen-activated protein kinase 1 antibody (KVA00809, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



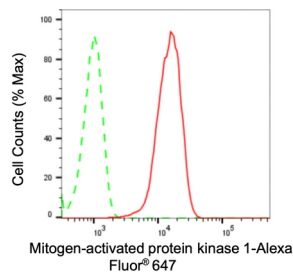
Western blotting analysis using Mitogen-activated protein kinase 1 antibody (KVA00809). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Mitogen-activated protein kinase 1 antibody (KVA00809, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of C2C12 cells with Mitogen-activated protein kinase 1 antibody (KVA00809, 1:1,000). Nuclei were stained blue with DAPI; Mitogen-activated protein kinase 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica Stellaris 5. Protein abundance based on laser intensity and smart gain: Medium. Scale bar: 20 µm.



Validation of Mitogen-activated protein kinase 1 knockdown using flow cytometry. Wild-type (WT, Blue) and knockdown (KD, Green) HeLa cells were stained with Mitogen-activated protein kinase 1 antibody (KVA00809, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of Mitogen-activated protein kinase 1 expression in C2C12 cells using Mitogen-activated protein kinase 1 antibody (KVA00809, 1:2,000). Green, isotype control; red, Mitogen-activated protein kinase 1.