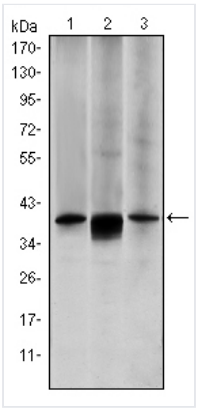
MAP2K6 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	MAP2K6, Monoclonal Antibody
Full Product Name	MAP2K6 Antibody
Product Gene Name	anti-MAP2K6 antibody
Product Synonym Names	Dual specificity mitogen activated protein kinase kinase 6; Dual specificity mitogen-activated protein kinase kinase 6; MAP kinase kinase 6; MAP2K6; MAPK/ERK kinase 6; MAPKK 6; MAPKK6; MEK 6; MEK6; Mitogen Activated Protein Kinase Kinase 6; MKK 6; MKK6; MP2K6_HUMAN; PRKMK6; Protein kinase mitogen activated kinase 6; protein kinase, mitogen-activated, kinase 6 (MAP kinase kinase 6); SAPK kinase 3; SAPKK-3; SAPKK3; SKK3; Stress-activated protein kinase kinase 3
Clonality	Monoclonal
Isotype	IgG1
Host	Mouse
Species Reactivity	Human, Mouse
Form/Format	Phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	Affinity-Chromatography
Concentration	1mg/ml (lot specific)
Specificity	MAP2K6 antibody detects endogenous levels of total MAP2K6
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.
Antibody/Peptide Pairs	MAP2K6 peptide (MBS9619794) is used for blocking the activity of MAP2K6 antibody (MBS9602340)
Molecular Weight	Observed: 38 kDa Predicted: 38 kDa
3D Structure	ModBase 3D Structure for P52564
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Immunogen	Purified recombinant fragment of human MAP2K6 expressed in E. Coli
Subcellular Location	Nucleus; Cytoskeleton
Tissue Specificity	Isoform 2 is only expressed in skeletal muscle. Isoform 1 is expressed in skeletal muscle, heart, and in lesser extent in liver or pancreas.
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-MAP2K6 antibody	Western Blot (WB), Immunohistochemisty (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC), ELISA (EIA)
Application Notes for anti-MAP2K6 antibody	ELISA: 1:10000 WB: 1:500-1:2000 IHC: 1:200-1:1000 IF/ICC: 1:100-1:500

Related Product Information for anti-MAP2K6 antibody	Description: This gene encodes a member of the dual specificity protein kinase family, which functions as a mitogen-activated protein (MAP) kinase kinase. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals. This protein phosphorylates and activates p38 MAP kinase in response to inflammatory cytokines or environmental stress. Function: Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. With MAP3K3/MKK3, catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in the MAP kinases p38 MAPK11, MAPK12, MAPK13 and MAPK14 and plays an important role in the regulation of cellular responses to cytokines and all kinds of stresses. Especially, MAP2K3/MKK3 and MAP2K6/MKK6 are both essential for the activation of MAPK11 and MAPK13 induced by environmental stress, whereas MAP2K6/MKK6 is the major MAPK11 activator in response to TNF. MAP2K6/MKK6 also phosphorylates and activates PAK6. The p38 MAP kinase signal transduction pathway leads to direct activation of transcription factors. Nuclear targets of p38 MAP kinase include the transcription factors ATF2 and ELK1. Within the p38 MAPK signal transduction pathway, MAP3K6/MKK6 mediates phosphorylation of STAT4 through MAPK14 activation, and is therefore required for STAT4 activation and STAT4-regulated gene expression in response to IL-12 stimulation. The pathway is also crucial for IL-6-induced SOCS3 expression and down-regulation of IL-6-mediated gene induction; and for IFNG-dependent gene transcription. Has a role in osteoclast differentiation through NF-kappa-B transactivation by TNFSF11, and in endochondral ossification and since SOX9 is another likely downstream target of the p38 MAPK pathway. MAP2K6/MKK6 mediates apoptotic cell death in thymocytes. Acts also as a regulator for melanocytes dendricity, through the modulation of Rho family GTPases. Subunit Structure: Dimer. Interacts with Yersinia yopJ. Interacts (via its D domain) with its substrates MAPK11, MAPK12, MAPK13 and MAPK14 (By similarity). Interacts (via its DVD domain) with MAP3Ks activators like MAP3K5/ASK1, MAP3K1/MEKK1, MAP3K2/MEKK2, MAP3K3/MEKK3, MAP3K4/MEKK4, MAP3K7/TAK1, MAP3K11/MLK3 and MAP3K17/TAOK2 (By similarity). Interacts with DCTN1. Interacts with EIF2AK2/PKR. Post-translational Modifications: Weakly autophosphorylated. Phosphorylated at Ser-207 and Thr-211 by the majority of M3Ks, such as MAP3K5/ASK1, MAP3K1/MEKK1, MAP3K2/MEKK2, MAP3K3/MEKK3, MAP3K4/MEKK4, MAP3K7/TAK1, MAP3K11/MLK3 and MAP3K17/TAOK2. Acetylation of Ser-207 and Thr-211 by Yersinia yopJ prevents phosphorylation and activation, thus blocking the MAPK signaling pathway. Similarity: The DVD domain (residues 311-334) contains a conserved docking site and is found in the mammalian MAP kinase kinases (MAP2Ks). The DVD sites bind to their specific upstream MAP kinase kinase kinases (MAP3Ks) and are essential for activation.The D domain (residues 4-19) contains a conserved docking site and is required for the binding to MAPK substrates. Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase subfamily.
Other Notes	Small volumes of anti-MAP2K6 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for MAP2K6 purchase	MBS9602340 is an antibody targeting MAP2K6. Also known as MAP2K6 Antibody. Reactive in Human, Mouse. Host: Mouse.



Western Blot (WB) of anti-MAP2K6 antibody
Figure 1: Western blot analysis using MAP2K6 mouse mAb against HepG2 (1), MCF-7 (2) and NIH/3T3 (3) cell lysate.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MAP2K6. It may not necessarily be applicable to this product.

NCBI GI #	14589900

NCBI GeneID	5608
NCBI Accession #	NP_002749.2
UniProt Primary Accession #	P52564
UniProt Related Accession #	P52564
GenBank Nucleotide #	NM_002758.3
NCBI Official Full Name	dual specificity mitogen-activated protein kinase kinase 6 isoform 1
NCBI Official Synonym Full Names	mitogen-activated protein kinase kinase 6
NCBI Official Symbol	MAP2K6
NCBI Official Synonym Symbols	MEK6; MKK6; MAPKK6; PRKMK6; SAPKK3; SAPKK-3
UniProt Protein Name	Dual specificity mitogen-activated protein kinase kinase 6
UniProt Synonym Protein Names	MAPK/ERK kinase 6; MEK 6; Stress-activated protein kinase kinase 3; SAPK kinase 3; SAPKK-3; SAPKK3
Protein Family	Dual specificity mitogen-activated protein kinase kinase
UniProt Gene Name	MAP2K6
UniProt Synonym Gene Names	MEK6; MKK6; PRKMK6; SKK3; MAP kinase kinase 6; MAPKK 6; MEK 6; SAPK kinase 3; SAPKK-3; SAPKK3
NCBI Protein Information	dual specificity mitogen-activated protein kinase kinase 6
NCBI Summary for MAP2K6	This gene encodes a member of the dual specificity protein kinase family, which functions as a mitogen-activated protein (MAP) kinase kinase. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals. This protein phosphorylates and activates p38 MAP kinase in response to inflammatory cytokines or environmental stress. As an essential component of p38 MAP kinase mediated signal transduction pathway, this gene is involved in many cellular processes such as stress induced cell cycle arrest, transcription activation and apoptosis. [provided by RefSeq, Jul 2008]
UniProt Comments for MAP2K6	Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. With MAP3K3/MKK3, catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in the MAP kinases p38 MAPK11, MAPK12, MAPK13 and MAPK14 and plays an important role in the regulation of cellular responses to cytokines and all kinds of stresses. Especially, MAP2K3/MKK3 and MAP2K6/MKK6 are both essential for the activation of MAPK11 and MAPK13 induced by environmental stress, whereas MAP2K6/MKK6 is the major MAPK11 activator in response to TNF. MAP2K6/MKK6 also phosphorylates and activates PAK6. The p38 MAP kinase signal transduction pathway leads to direct activation of transcription factors. Nuclear targets of p38 MAP kinase include the transcription factors ATF2 and ELK1. Within the p38 MAPK signal transduction pathway, MAP3K6/MKK6 mediates phosphorylation of STAT4 through MAPK14 activation, and is therefore required for STAT4 activation and STAT4-regulated gene expression in response to IL-12 stimulation. The pathway is also crucial for IL-6-induced SOCS3 expression and down-regulation of IL-6-mediated gene induction; and for IFNG-dependent gene transcription. Has a role in osteoclast differentiation through NF-kappa-B transactivation by TNFSF11, and in endochondral ossification and since SOX9 is another likely downstream target of the p38 MAPK pathway. MAP2K6/MKK6 mediates apoptotic cell death in thymocytes. Acts also as a regulator for melanocytes dendricity, through the modulation of Rho family GTPases.
Research Articles on MAP2K6	**1.** Data show that miR-625-3p induces oxaliplatin resistance by abrogating MAP2K6-p38-regulated apoptosis and cell cycle control networks.
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