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Anti-MKK3/6 Antibody

Mouse Anti Human Monoclonal Antibody
Catalog # AP53440

Product Information

Application	WB, IP
Primary Accession	P52564
Other Accession	NM_002758
Reactivity	Human, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Immunogen	Purified recombinant human MKK6 protein fragments expressed in E.coli.
Purification	Affinity purified
Calculated MW	37492

Additional Information

Gene ID	5608
Other Names	AW212142;dual specificity mitogen activated protein kinase kinase 3;Dual specificity mitogen activated protein kinase kinase 6;Dual specificity mitogen-activated protein kinase kinase 3;MAP kinase kinase 3;MAP kinase kinase 6;map2k3;MAP2K6;MAPK ERK kinase 3;MAPK/ERK kinase 3;MAPK/ERK kinase 6;MAPKK 3;MAPKK 6;MAPKK3;MAPKK6;MEK 3;MEK 6;MEK3;Mitogen activated protein kinase kinase 3;Mitogen activated protein kinase kinase 6;MKK 3;MKK3;MKK6;mMKK3b;MP2K3_HUMAN;PRKMK 3;PRKMK3;PRKMK6;Protein kinase, mitogen activated, kinase 6 (MAP kinase kinase 6);protein kinase, mitogen-activated, kinase 3;SAPK kinase 2;SAPKK 2;SAPKK 3;SAPKK-2;SAPKK2;SAPKK3;Stress activated protein kinase kinase 2;Stress activated protein kinase kinase 3;Stress-activated protein kinase kinase 2.
Dilution	WB~~1:1000 IP~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

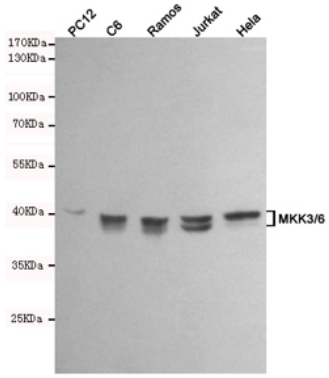
Name	MAP2K6
Synonyms	MEK6, MKK6, PRKMK6, SKK3

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.
Cellular Location	Nucleus. Cytoplasm. Cytoplasm, cytoskeleton. Note=Binds to microtubules
Tissue Location	Isoform 2 is only expressed in skeletal muscle. Isoform 1 is expressed in skeletal muscle, heart, and in lesser extent in liver or pancreas.

Background

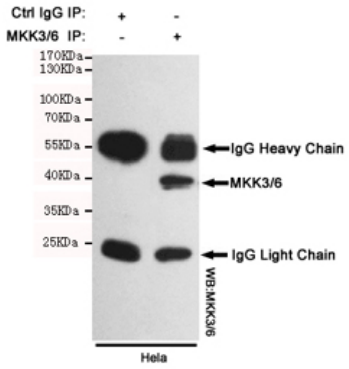
Dual specificity kinase. Is activated by cytokines and environmental stress in vivo. Catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in the MAP kinase p38.

Images



Western blot analysis of extracts from PC12,C6,Ramos,Jurkat and Hela cell lysates using MKK3/6 mouse mAb (1:1000 diluted).Predicted band size:40KDa.Observed band size:40KDa.

Immunoprecipitation analysis of Hela cell lysates using MKK3/6 mouse mAb.



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