

Mouse Map2k6 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP16108a

Product Information

Application	WB
Primary Accession	P70236
Other Accession	Q5E9X2 , NP_036073.1
Reactivity	Mouse
Predicted	Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Clone Names	RB34810
Calculated MW	37432

Additional Information

Gene ID	26399
Other Names	Dual specificity mitogen-activated protein kinase kinase 6, MAP kinase kinase 6, MAPKK 6, MAPK/ERK kinase 6, MEK 6, SAPKK3, Map2k6, Prkmk6, Sapkk3
Target/Specificity	This Mouse Map2k6 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 30-57 amino acids from the N-terminal region of mouse Map2k6.
Dilution	WB~~1:1000
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Mouse Map2k6 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Map2k6
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Synonyms

Prkmk6, Sapkk3

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- κ 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

Background

Map2k6 catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in MAP kinase p38 exclusively.

References

- Remy, G., et al. *Cell. Signal.* 22(4):660-667(2010)
Sorkin, L.S., et al. *Neuroscience* 162(2):462-471(2009)
Yoshizawa, T., et al. *J. Immunol.* 183(2):1360-1367(2009)
Bulat, N., et al. *J. Lipid Res.* 50(1):81-89(2009)
Yamashita, T., et al. *Biochem. Biophys. Res. Commun.* 365(2):252-257(2008)

Images

Mouse Map2k6 Antibody (N-term) (Cat. #AP16108a) western blot analysis in mouse liver tissue lysates (35ug/lane). This demonstrates the Map2k6 antibody detected the Map2k6 protein (arrow).

