

Mouse Map3k7 Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP13919a**Specification**

Mouse Map3k7 Antibody (N-term) Blocking peptide - Product InformationPrimary Accession [Q62073](#)**Mouse Map3k7 Antibody (N-term) Blocking peptide - Additional Information**

Gene ID 26409

Other Names

Mitogen-activated protein kinase kinase kinase 7, Transforming growth factor-beta-activated kinase 1, TGF-beta-activated kinase 1, Map3k7, Tak1

Target/Specificity

The synthetic peptide sequence used to generate the antibody AP13919a was selected from the N-term region of Mouse Map3k7. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Mouse Map3k7 Antibody (N-term) Blocking peptide - Protein Information

Name Map3k7

Synonyms Tak1

Function

Serine/threonine kinase which acts as an essential component of the MAP kinase signal transduction pathway (PubMed:10748100, PubMed:16157589, PubMed:21183079, PubMed:29291351). Plays an important role in the cascades of cellular responses evoked by changes in the environment (PubMed:10748100, PubMed:16157589, PubMed:21183079, PubMed:29291351).

[29291351](http://www.uniprot.org/citations/29291351)). Mediates signal transduction of TRAF6, various cytokines including interleukin-1 (IL-1), transforming growth factor- β (TGF β), TGF β -related factors like BMP2 and BMP4, toll-like receptors (TLR), tumor necrosis factor receptor CD40 and B-cell receptor (BCR) (PubMed:[8533096](http://www.uniprot.org/citations/8533096), PubMed:[10748100](http://www.uniprot.org/citations/10748100), PubMed:[16157589](http://www.uniprot.org/citations/16157589), PubMed:[21183079](http://www.uniprot.org/citations/21183079), PubMed:[29291351](http://www.uniprot.org/citations/29291351)). Once activated, acts as an upstream activator of the MKK/JNK signal transduction cascade and the p38 MAPK signal transduction cascade through the phosphorylation and activation of several MAP kinase kinases like MAP2K1/MEK1, MAP2K3/MKK3, MAP2K6/MKK6 and MAP2K7/MKK7 (By similarity). These MAP2Ks in turn activate p38 MAPKs and c-jun N-terminal kinases (JNKs); both p38 MAPK and JNK pathways control the transcription factors activator protein-1 (AP-1) (By similarity). Independently of MAP2Ks and p38 MAPKs, acts as a key activator of NF-kappa-B by promoting activation of the I-kappa-B-kinase (IKK) core complex (PubMed:[17965022](http://www.uniprot.org/citations/17965022)). Mechanistically, recruited to polyubiquitin chains of RIPK2 and IKBKG/NEMO via TAB2/MAP3K7IP2 and TAB3/MAP3K7IP3, and catalyzes phosphorylation and activation of IKBKB/IKKB component of the IKK complex, leading to NF-kappa-B activation (By similarity). In osmotic stress signaling, plays a major role in the activation of MAPK8/JNK1, but not that of NF-kappa-B (By similarity). Promotes TRIM5 capsid-specific restriction activity (By similarity). Phosphorylates RIPK1 at 'Ser-321' which positively regulates RIPK1 interaction with RIPK3 to promote necroptosis but negatively regulates RIPK1 kinase activity and its interaction with FADD to mediate apoptosis (PubMed:[28842570](http://www.uniprot.org/citations/28842570)). Phosphorylates STING1 in response to cGAMP-activation, promoting association between STEEP1 and STING1 and STING1 translocation to COPII vesicles (PubMed:[37832545](http://www.uniprot.org/citations/37832545)).

Cellular Location

Cytoplasm. Cell membrane; Peripheral membrane protein; Cytoplasmic side. Note=Although the majority of MAP3K7/TAK1 is found in the cytosol, when complexed with TAB1/MAP3K7IP1 and TAB2/MAP3K7IP2, it is also localized at the cell membrane.

Mouse Map3k7 Antibody (N-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

Mouse Map3k7 Antibody (N-term) Blocking peptide - Images

Mouse Map3k7 Antibody (N-term) Blocking peptide - Background

Component of a protein kinase signal transduction cascade. Mediator of TRAF6 and TGF- β signal transduction. Activates IKBKB and MAPK8 in response to TRAF6 signaling. Stimulates NF-kappa-B activation and the p38 MAPK pathway. In osmotic stress signaling, plays a major role in the activation of MAPK8/JNK, but not that of NF-kappa-B.

Mouse Map3k7 Antibody (N-term) Blocking peptide - References

Kajino-Sakamoto, R., et al. J. Immunol. 185(8):4729-4737(2010)Wu, Z.H., et al. Mol. Cell 40(1):75-86(2010)Scholz, R., et al. J. Biol. Chem. 285(33):25753-25766(2010)Greenblatt, M.B., et al. J. Clin. Invest. 120(7):2457-2473(2010)Bettermann, K., et al. Cancer Cell 17(5):481-496(2010)