

Phospho-MAP3K7IP1(S423) Antibody Blocking peptide
Synthetic peptide
Catalog # BP3421a**Specification**

Phospho-MAP3K7IP1(S423) Antibody Blocking peptide - Product InformationPrimary Accession
Other Accession[Q15750](#)
[NP_006107](#)**Phospho-MAP3K7IP1(S423) Antibody Blocking peptide - Additional Information****Gene ID** 10454**Other Names**

TGF-beta-activated kinase 1 and MAP3K7-binding protein 1, Mitogen-activated protein kinase kinase kinase 7-interacting protein 1, TGF-beta-activated kinase 1-binding protein 1, TAK1-binding protein 1, TAB1, MAP3K7IP1

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP3421a](/products/AP3421a) was selected from the region of human Phospho-MAP3K7IP1-pS423. 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.

Phospho-MAP3K7IP1(S423) Antibody Blocking peptide - Protein Information**Name** TAB1**Synonyms** MAP3K7IP1**Function**

Key adapter protein that plays an essential role in JNK and NF-kappa-B activation and proinflammatory cytokines production in response to stimulation with TLRs and cytokines (PubMed: [22307082](http://www.uniprot.org/citations/22307082), PubMed: [24403530](http://www.uniprot.org/citations/24403530)). Mechanistically, associates with the catalytic domain of MAP3K7/TAK1 to trigger MAP3K7/TAK1 autophosphorylation leading to its full activation (PubMed: [10838074](http://www.uniprot.org/citations/10838074), PubMed: [10838074](#)).

href="http://www.uniprot.org/citations/25260751" target="_blank">25260751, PubMed:37832545). Similarly, associates with MAPK14 and triggers its autophosphorylation and subsequent activation (PubMed:11847341, PubMed:29229647). In turn, MAPK14 phosphorylates TAB1 and inhibits MAP3K7/TAK1 activation in a feedback control mechanism (PubMed:14592977). Plays also a role in recruiting MAPK14 to the TAK1 complex for the phosphorylation of the TAB2 and TAB3 regulatory subunits (PubMed:18021073).

Cellular Location

Cytoplasm, cytosol. Endoplasmic reticulum membrane; Peripheral membrane protein; Cytoplasmic side. Note=Recruited to the endoplasmic reticulum following interaction with STING1

Tissue Location

Ubiquitous..

Phospho-MAP3K7IP1(S423) Antibody Blocking peptide - Protocols

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

- [Blocking Peptides](#)

Phospho-MAP3K7IP1(S423) Antibody Blocking peptide - Images

Phospho-MAP3K7IP1(S423) Antibody Blocking peptide - Background

MAP3K7IP1 was identified as a regulator of the MAP kinase kinase kinase MAP3K7/TAK1, which is known to mediate various intracellular signaling pathways, such as those induced by TGF beta, interleukin 1, and WNT-1. This protein interacts and thus activates TAK1 kinase. It has been shown that the C-terminal portion of this protein is sufficient for binding and activation of TAK1, while a portion of the N-terminus acts as a dominant-negative inhibitor of TGF beta, suggesting that this protein may function as a mediator between TGF beta receptors and TAK1. This protein can also interact with and activate the mitogen-activated protein kinase 14 (MAPK14/p38alpha), and thus represents an alternative activation pathway, in addition to the MAPKK pathways, which contributes to the biological responses of MAPK14 to various stimuli.

Phospho-MAP3K7IP1(S423) Antibody Blocking peptide - References

Conner,S.H., Biochem. J. 399 (3), 427-434 (2006)Zhou,H., Mol. Cell. Biol. 26 (10), 3824-3834 (2006)Singhirunnusorn,P., J. Biol. Chem. 280 (8), 7359-7368 (2005)Jin,J., Curr. Biol. 14 (16), 1436-1450 (2004)