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Phospho-MAP3K7IP1(S423) Antibody
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3421a

Specification

Phospho-MAP3K7IP1(S423) Antibody - Product Information

Application	**DB,E**
Primary Accession	Q15750
Other Accession	NP_006107
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**

Phospho-MAP3K7IP1(S423) Antibody - 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
This MAP3K7IP1 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S423 of human MAP3K7IP1.

Dilution
DB~~1:500
E~~Use at an assay dependent concentration.

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
Phospho-MAP3K7IP1(S423) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Phospho-MAP3K7IP1(S423) Antibody - 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, PubMed:24403530). Mechanistically, associates with the catalytic domain of MAP3K7/TAK1 to trigger MAP3K7/TAK1 autophosphorylation leading to its full activation (PubMed:10838074, PubMed: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). Also plays 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

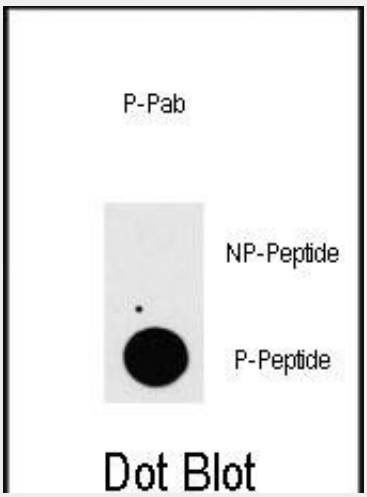
Tissue Location
Ubiquitous..

Phospho-MAP3K7IP1(S423) Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Phospho-MAP3K7IP1(S423) Antibody - Images



Dot blot analysis of anti-MAP3K7IP1-pS423 Phospho-specific Pab (Cat.#AP3421a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.

Phospho-MAP3K7IP1(S423) Antibody - 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 - 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)