10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

TAB1 Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP9382c

Specification

TAB1 Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q15750

TAB1 Antibody (Center) 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

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.

TAB1 Antibody (Center) 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, 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:<a href="http://www.uniprot.org/citations/14592977"

target="_blank">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..

TAB1 Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

TAB1 Antibody (Center) Blocking Peptide - Images

TAB1 Antibody (Center) Blocking Peptide - Background

TAB1 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.

TAB1 Antibody (Center) Blocking Peptide - References

Isono, T., et al. Int. J. Oncol. 35(2):425-432(2009)Prickett, T.D., et al. J. Biol. Chem. 283(28):19245-19254(2008)Neil, J.R., et al. Cancer Res. 68(5):1462-1470(2008)Conner, S.H., et al. Biochem. J. 399(3):427-434(2006)Zhou, H., et al. Mol. Cell. Biol. 26(10):3824-3834(2006)Yamaguchi, K., et al. EMBO J. 18(1):179-187(1999)