Phospho-TAK1 (Ser389) Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	TAK1, Blocking Peptide
Full Product Name	Phospho-TAK1 (Ser389) Blocking Peptide
Product Gene Name	TAK1 blocking peptide
Product Synonym Names	M3K7_HUMAN; MAP3K 7; Map3k7; MEKK7; Mitogen activated protein kinase kinase kinase 7; Mitogen-activated protein kinase kinase kinase 7; TAK1; TGF beta activated kinase 1; TGF-beta-activated kinase 1; TGF1a; Transforming growth factor beta activated kinase 1; Transforming growth factor-beta-activated kinase 1
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml.
Purity/Purification	The purity is >90%,tested by HPLC and MS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	TAK1 (Ser389) peptide (MBS9618196) is used for blocking the activity of TAK1 (Ser389) antibody (MBS9610478)
Molecular Weight	67,196 Da
Chromosome Location	Chromosome: 6; NC_000006.11 (91223292..91297020, complement). Location: 6q15
OMIM	602614
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Notes	For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for TAK1 blocking peptide	Blocking/Control
Related Product Information for TAK1 blocking peptide	Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody.
Other Notes	Small volumes of TAK1 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for TAK1 purchase	MBS9618196 is a blocking peptide targeting TAK1. Also known as Phospho-TAK1 (Ser389) Blocking Peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TAK1. It may not necessarily be applicable to this product.

NCBI GI #	4507361
NCBI GeneID	6885
NCBI Accession #	NP_003179.1

UniProt Primary Accession #	O43318
UniProt Secondary Accession #	O43317; O43319; Q5TDN2; Q5TDN3; Q5TDT7; Q9NTR3; Q9NZ70; B2RE27; E1P523
UniProt Related Accession #	O43318
GenBank Nucleotide #	NP_003179.1
NCBI Official Full Name	mitogen-activated protein kinase kinase kinase 7 isoform A
NCBI Official Synonym Full Names	mitogen-activated protein kinase kinase kinase 7
NCBI Official Symbol	MAP3K7
NCBI Official Synonym Symbols	TAK1; MEKK7; TGF1a
UniProt Protein Name	Mitogen-activated protein kinase kinase kinase 7
UniProt Synonym Protein Names	Transforming growth factor-beta-activated kinase 1
Protein Family	TGF-beta-activated kinase 1 and MAP3K7-binding protein
UniProt Gene Name	MAP3K7
UniProt Synonym Gene Names	TAK1; TGF-beta-activated kinase 1
UniProt Entry Name	M3K7_HUMAN
NCBI Protein Information	mitogen-activated protein kinase kinase kinase 7; TGF-beta activated kinase 1; TGF-beta-activated kinase 1; transforming growth factor-beta-activated kinase 1
NCBI Summary for TAK1	The protein encoded by this gene is a member of the serine/threonine protein kinase family. This kinase mediates the signaling transduction induced by TGF beta and morphogenetic protein (BMP), and controls a variety of cell functions including transcription regulation and apoptosis. In response to IL-1, this protein forms a kinase complex including TRAF6, MAP3K7P1/TAB1 and MAP3K7P2/TAB2; this complex is required for the activation of nuclear factor kappa B. This kinase can also activate MAPK8/JNK, MAP2K4/MKK4, and thus plays a role in the cell response to environmental stresses. Four alternatively spliced transcript variants encoding distinct isoforms have been reported. [provided by RefSeq, Jul 2008]
UniProt Comments for TAK1	TAK1: a protein kinase of the MLK family. Mediates signal transduction induced by TGF beta and morphogenetic protein (BMP), and controls a variety of cell functions including transcription regulation and apoptosis. In response to IL-1, forms a kinase complex including TRAF6, MAP3K7P1/TAB1 and MAP3K7P2/TAB2; this complex is required for the activation of nuclear factor kappa B. Also activates MAPK8/JNK, MAP2K4/MKK4, and thus plays a role in the cell response to environmental stresses. Four alternatively spliced isoforms have been reported. Three splice variant isoforms have been described. Protein type: EC 2.7.11.25; Kinase, protein; Protein kinase, Ser/Thr (non-receptor); Protein kinase, TKL; TKL group; MLK family; TAK1 subfamily Chromosomal Location of Human Ortholog: 6q15 Cellular Component: nucleoplasm; cytoplasm; plasma membrane; endosome membrane; IkappaB kinase complex; cytosol; nucleus Molecular Function: MAP kinase kinase activity; protein serine/threonine kinase activity; protein binding; MAP kinase kinase kinase activity; magnesium ion binding; ATP binding; protein kinase activity Biological Process: positive regulation of JNK activity; I-kappaB kinase/NF-kappaB cascade; activation of MAPKK activity; activation of MAPK activity; apoptosis; stress-activated MAPK cascade; positive regulation of T cell cytokine production; toll-like receptor 3 signaling pathway; T cell receptor signaling pathway; activation of NF-kappaB transcription factor; toll-like receptor 10 signaling pathway; toll-like receptor 5 signaling pathway; transforming growth factor beta receptor signaling pathway; JNK cascade; angiogenesis; toll-like receptor 4 signaling pathway; positive regulation of I-kappaB kinase/NF-kappaB cascade; transcription, DNA-dependent; MyD88-independent toll-like receptor signaling pathway; activation of NF-kappaB-inducing kinase; toll-like receptor 2 signaling pathway; MyD88-dependent toll-like receptor signaling pathway; positive regulation of interleukin-2 production; toll-like receptor signaling pathway; innate immune response; positive regulation of T cell activation; toll-like receptor 9 signaling pathway; I-kappaB phosphorylation; neural tube formation

Research Articles on TAK1	**1.** Results indicate that TAK1 and p38 kinases appear to be central in the 'priming effect' of LTB(4) on neutrophils to enhance response to Toll-like receptor ligands.
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