

Datasheet for ABIN7554477

MAP3K7 Protein (AA 1-606) (His tag)



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Overview

Quantity:	1 mg
Target:	MAP3K7
Protein Characteristics:	AA 1-606
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MAP3K7 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat MAP3K7 Protein expressed in mammalian cells.
Sequence:	<p>MSTASAASSS SSSSAGEMIE APSQVLNFEE IDYKEIEVEE VVGRGAFGVV CKAKWRAKDV</p> <p>AIKQIESESE RKAFIVELRQ LSRVNHNPV KLYGACLNVP CLVMEYAEGG SLYNVLHGAE</p> <p>PLPPYYTAAHA MSWCLQCSQG VAYLHSMQPK ALIHRDLKPP NLLL VAGGT V LKICDFGTAC</p> <p>DIQTHMTNNK GSAAWMAPEV FECSNYSEKC DVFSWGIIW EVITRRKPF D EIGGPAFRIM</p> <p>WAVHNGTRPP LIKNLPKPIE SLMTRCWSKD PSQRPSMEEI VKIMTHLMRY FPGADEPLQY</p> <p>PCQYSDEGQS NSATSTGSFM DIASNTSNK SDTNMEQVPA TNDTIKRLS KLLKNQAKQQ</p> <p>SESGRLSLGA SRGSSVESLP PTSEGRMSA DMSEIARIA ATTAYSKPKR GHRKTASFGN</p> <p>ILDVPEIVIS GNGQPRRRSI QDLTVTGTEP GQVSSRSSP SVRMITSGP TSEKPTRSH</p> <p>WTPDDSTDN GSDNSIPMAY LTLDHQLQPL APCPNSKESM AVFEQHCKMA QEYMKVQTEI</p> <p>ALLLQRKQEL VAELDQDEKD QQNTSRLVQE HKKLLDENKS LSTYYQQCKK QLEVIRSQQQ</p> <p>KRQGT S Sequence without tag. The proposed Purification-Tag is based on experiences with</p>

the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:	<p>Key Benefits:</p> <ul style="list-style-type: none">• Made to order protein - from design to production - by highly experienced protein experts.• Protein expressed in mammalian cells and purified in one-step affinity chromatography• The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.• State-of-the-art algorithm used for plasmid design (Gene synthesis). <p>This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.</p> <p>If you are not interested in a full length protein, please contact us for individual protein fragments.</p> <p>The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.</p>
Purity:	> 90 % as determined by Bis-Tris Page, Western Blot
Grade:	custom-made

Target Details

Target:	MAP3K7
Alternative Name:	MAP3K7 (MAP3K7 Products)
Background:	<p>Mitogen-activated protein kinase kinase kinase 7 (EC 2.7.11.25) (Transforming growth factor-beta-activated kinase 1) (TGF-beta-activated kinase 1),FUNCTION: Serine/threonine kinase which acts as an essential component of the MAP kinase signal transduction pathway (PubMed:10094049, PubMed:11460167, PubMed:12589052, PubMed:16845370, PubMed:16893890, PubMed:21512573, PubMed:8663074, PubMed:9079627). Plays an important role in the cascades of cellular responses evoked by changes in the environment (PubMed:10094049, PubMed:11460167, PubMed:12589052, PubMed:16845370, PubMed:16893890, PubMed:21512573, PubMed:8663074, PubMed:9079627). Mediates signal transduction of TRAF6, various cytokines including interleukin-1 (IL-1), transforming growth factor-beta (TGFB), TGFB-related factors like BMP2 and BMP4, toll-like receptors (TLR), tumor necrosis factor receptor CD40 and B-cell receptor (BCR) (PubMed:9079627,</p>

Target Details

PubMed:16893890). 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 (PubMed:8663074, PubMed:11460167). 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) (PubMed:8663074, PubMed:11460167, PubMed:12589052). 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:8663074, PubMed:12589052). 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 (PubMed:10094049, PubMed:11460167). In osmotic stress signaling, plays a major role in the activation of MAPK8/JNK1, but not that of NF-kappa-B (PubMed:16893890). Promotes TRIM5 capsid-specific restriction activity (PubMed:21512573). 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 (By similarity). Phosphorylates STING1 in response to cGAMP-activation, promoting association between STEEP1 and STING1 and STING1 translocation to COPII vesicles (PubMed:37832545). {ECO:0000250|UniProtKB:Q62073, ECO:0000269|PubMed:10094049, ECO:0000269|PubMed:11460167, ECO:0000269|PubMed:12589052, ECO:0000269|PubMed:16845370, ECO:0000269|PubMed:16893890, ECO:0000269|PubMed:21512573, ECO:0000269|PubMed:37832545, ECO:0000269|PubMed:8663074, ECO:0000269|PubMed:9079627}.

Molecular Weight: 67.2 kDa

UniProt: [O43318](#)

Pathways: [NF-kappaB Signaling](#), [TCR Signaling](#), [TLR Signaling](#), [Fc-epsilon Receptor Signaling Pathway](#), [Activation of Innate immune Response](#), [Regulation of Leukocyte Mediated Immunity](#), [Positive Regulation of Immune Effector Process](#), [Production of Molecular Mediator of Immune Response](#), [Tube Formation](#), [Toll-Like Receptors Cascades](#), [BCR Signaling](#), [Ubiquitin Proteasome Pathway](#)

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies

Application Details

as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Restrictions: For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months