

Datasheet for ABIN3093867

MAP2K4 Protein (AA 2-399) (His tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	MAP2K4
Protein Characteristics:	AA 2-399
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MAP2K4 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	<p>AAPSPSGGGG SGGGSGSGTP GPVGSPAPGH PAVSSMQGKR KALKLNFANP PFKSTARFTL NPNPTGVQNP HIERLRTHSI ESSGKLKISP EQHWDFTAED LKDLGEIGRG AYGSVNKMVH KPSGQIMAVK RIRSTVDEKE QKQLLMDLDV VMRSSDCPYI VQFYGALFRE GDCWICMELM STSFDFKYKY VYSLDDVIP EEILGKITLA TVKALNHLKE NLKIIHRDIK PSNILLDRSG NIKLCDFGIS GQLVDSIAKT RDAGCRPYMA PERIDPSASR QGYDVRSDVW SLGITLYELA TGRFPYPKWN SVFDQLTQVV KGDPPQLSNS EEREFSPSFI NFNVLCLTKD ESKRPKYKEL LKHPFILMYE ERAVEVACYV CKILDQMPAT PSSPMYVD</p> <p>Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.</p>
Characteristics:	<ul style="list-style-type: none">• Made in Germany - from design to production - by highly experienced protein experts.• Human MAP2K4 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.

Product Details

- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	MAP2K4
Alternative Name:	MAP2K4 (MAP2K4 Products)

Target Details

Background:	Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. Essential component of the stress-activated protein kinase/c-Jun N-terminal kinase (SAP/JNK) signaling pathway. With MAP2K7/MKK7, is the one of the only known kinase to directly activate the stress-activated protein kinase/c-Jun N-terminal kinases MAPK8/JNK1, MAPK9/JNK2 and MAPK10/JNK3. MAP2K4/MKK4 and MAP2K7/MKK7 both activate the JNKs by phosphorylation, but they differ in their preference for the phosphorylation site in the Thr-Pro-Tyr motif. MAP2K4 shows preference for phosphorylation of the Tyr residue and MAP2K7/MKK7 for the Thr residue. The phosphorylation of the Thr residue by MAP2K7/MKK7 seems to be the prerequisite for JNK activation at least in response to proinflammatory cytokines, while other stimuli activate both MAP2K4/MKK4 and MAP2K7/MKK7 which synergistically phosphorylate JNKs. MAP2K4 is required for maintaining peripheral lymphoid homeostasis. The MKK/JNK signaling pathway is also involved in mitochondrial death signaling pathway, including the release cytochrome c, leading to apoptosis. Whereas MAP2K7/MKK7 exclusively activates JNKs, MAP2K4/MKK4 additionally activates the p38 MAPKs MAPK11, MAPK12, MAPK13 and MAPK14. {ECO:0000269 PubMed:7716521}.
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Molecular Weight:	45.1 kDa Including tag.
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UniProt:	P45985
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Pathways:	MAPK Signaling , TLR Signaling , Fc-epsilon Receptor Signaling Pathway , Activation of Innate immune Response , Toll-Like Receptors Cascades , BCR Signaling
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Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
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Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
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Restrictions:	For Research Use only
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Handling

Format:	Liquid
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Handling

Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value 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:	Unlimited (if stored properly)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process