

Datasheet for ABIN3135364

**MAP4K2 Protein (AA 1-821) (His tag)****1** Image[Go to Product page](#)

## Overview

Quantity:	1 mg
Target:	MAP4K2
Protein Characteristics:	AA 1-821
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MAP4K2 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS), Crystallization (Crys)

## Product Details

Sequence:	MALLRDVSLQ DPRDRFELLQ RVGAGTYGDV YKARDTVTSE LAAVKIVKLD PGDDISSLQQ EITILRECRH PNVVAYIGSY LRNDRLWICM EFCGGGSLQE IYHATGPLEE RQIAYVCREA LKGLHHLHSQ GKIHRDIKGA NLLLTQGDV KLADFGVSGE LTASVAKRRS FIGTPYWMAP EVAEVERKGG YNELCDVWAL GITAIELGEL QPPLFHLHPM RALMLMSKSS FQPPKLRDKT RWTQNFHHFL KLALTKNPKK RPTAERLLQH PFTTQHLPPA LLTQLLDKAS DPHLGTLSP DSELETHDMF PDTIHSRSHH GPAERTPSEI QFHQVKFGAP RRKETDPLNE PWEEEWTLG KEELSGSLLQ SVQEALEERS LTIRPALELQ ELDSPDDAIG TIKRAPFLGL PHTESTSGDN AQSCSPGTLA APPAGPGSPA LLPTAWATLK QQEDRERSSC HGLPPTPKVH MGACFSKVFN GCPLQIHAHV TWVHPVTRDQ FLVVGAEEDI YTLNLHELHE DTMEKLISQR CSWLYCVNNV LLSLSGKSTH IWAHDLPLGF EQRLQHQAP LSIPTNRITQ RIIPRRFALS TKIPDTKGCL QCRVVRNPYT GSTFLAALP ASLLLLQWYE PLQKFLLLKN FSSPLPSPAG MLEPLVLDGK ELPQVCVGAE GPEGPGCRVL FHVLPLEAGL TPDILIPPEG IPGSAQQVIQ VDRDVLVVSF
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ERCVRIVNLQ GEPTAALAPE LTFDFTIETV VCLQDSVLAF WSHGMQGRSL DTNEVTQEIT  
DETRIFRVLG AHRDIILESI PTDNPGAHSN LYILTGHQSS Y

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

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Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Map4k2 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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.

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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.

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Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

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Sterility:

0.22 µm filtered

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Endotoxin Level:

Protein is endotoxin free.

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## Product Details

Grade: Crystallography grade

## Target Details

Target: MAP4K2

Alternative Name: Map4k2 ([MAP4K2 Products](#))

Background: Serine/threonine-protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. Acts as a MAPK kinase kinase (MAP4K) and is an upstream activator of the stress-activated protein kinase/c-Jun N-terminal kinase (SAP/JNK) signaling pathway and to a lesser extend of the p38 MAPKs signaling pathway. Required for the efficient activation of JNKs by TRAF6-dependent stimuli, including pathogen-associated molecular patterns (PAMPs) such as polyinosine-polycytidine (poly(IC)), lipopolysaccharides (LPS), lipid A, peptidoglycan (PGN), or bacterial flagellin. To a lesser degree, IL-1 and engagement of CD40 also stimulate MAP4K2-mediated JNKs activation. The requirement for MAP4K2/GCK is most pronounced for LPS signaling, and extends to LPS stimulation of c-Jun phosphorylation and induction of IL-8. Enhances MAP3K1 oligomerization, which may relieve N-terminal mediated MAP3K1 autoinhibition and lead to activation following autophosphorylation. Mediates also the SAP/JNK signaling pathway and the p38 MAPKs signaling pathway through activation of the MAP3Ks MAP3K10/MLK2 and MAP3K11/MLK3. May play a role in the regulation of vesicle targeting or fusion. {ECO:0000269|PubMed:19246396, ECO:0000269|PubMed:8643544}.

Molecular Weight: 92.2 kDa Including tag.

UniProt: [Q61161](#)

## 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.

Comment: Protein has not been tested for activity yet. 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.

Restrictions: For Research Use only

## Handling

Format:	Liquid
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