Datasheet for ABIN3136204

MAPKAP1 Protein (AA 2-522) (His tag)

1 Image

Overview

Quantity:	1 mg
Target:	MAPKAP1
Protein Characteristics:	AA 2-522
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MAPKAP1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	AFLDNPTIIL AHIRQSHVTS DDTGMCEMVL IDHDVDLEKT HPPSVPGDSG SEVQGSSGET QGYIYAQSVD ITSSWDFGIR RRSNTAQRLE RLRKERQNQI KCKNIQWKER NSKQSAQELK SLFEKKSLKE KPPSSGKQSI LSVRLEQCPL QLNNPFNEYS KFDGKGHVGT TATKKIDVYL PLHSSQDRLL PMTVVTMASA RVQDLIGLIC WQYTSEGREP KLNDNVSAYC LHIAEDDGEV DTDFPPLDSN EPIHKFGFST LALVEKYSSP GLTSKESLFV RINAAHGFSL IQVDNTKVTM KEILLKAVKR RKGSQKISGP QYRLEKQSEP NIAVDLESTL ESQNAWEFCL VRENSSRADG VFEEDSQIDI ATVQDMLSSH HYKSFKVSMI HRLRFTTDVQ LGISGDKVEI DPVTNQKAST KFWIKQKPIS IDCDLLCACD LAEEKSPSHA VFKLTYLSSH DYKHLYFESD AATVSEIVLK VNYILESRAS TARADYLAQK QRKLNRRTSF SFQKEKKSGQ Q

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

Product Details

Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts.
	• Mouse Mapkap1 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 receival 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:	MAPKAP1
Alternative Name:	Mapkap1 (MAPKAP1 Products)
Background:	Subunit of mTORC2, which regulates cell growth and survival in response to hormonal signals. mTORC2 is activated by growth factors, but, in contrast to mTORC1, seems to be nutrient-insensitive. mTORC2 seems to function upstream of Rho GTPases to regulate the actin cytoskeleton, probably by activating one or more Rho-type guanine nucleotide exchange factors. mTORC2 promotes the serum-induced formation of stress-fibers or F-actin. mTORC2 plays a critical role in AKT1 'Ser-473' phosphorylation, which may facilitate the phosphorylation of the activation loop of AKT1 on 'Thr-308' by PDK1 which is a prerequisite for full activation. mTORC2 regulates the phosphorylation of SGK1 at 'Ser-422'. mTORC2 also modulates the phosphorylation of PRKCA on 'Ser-657'. Within mTORC2, MAPKAP1 is required for complex formation and mTORC2 kinase activity. MAPKAP1 inhibits MAP3K2 by preventing its dimerization and autophosphorylation. Inhibits HRAS and KRAS signaling. Enhances osmotic stress-induced phosphorylation of ATF2 and ATF2-mediated transcription. Isoform 1 is involved in ciliogenesis, regulates cilia length through its interaction with CCDC28B independently of mTORC2 complex. {ECO:0000269|PubMed:16962653}.
Molecular Weight:	59.8 kDa Including tag.
UniProt:	Q8BKH7
Pathways:	PI3K-Akt Signaling, Fc-epsilon Receptor Signaling Pathway, Neurotrophin Signaling Pathway, Skeletal Muscle Fiber Development, CXCR4-mediated Signaling Events

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 gurantee 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

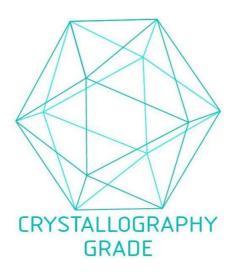|	
Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images

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