Datasheet for ABIN3093808

MAPK7 Protein (AA 2-816) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	MAPK7
Protein Characteristics:	AA 2-816
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MAPK7 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	AEPLKEEDGE DGSAEPPGPV KAEPAHTAAS VAAKNLALLK ARSFDVTFDV GDEYEIIETI GNGAYGVVSS ARRRLTGQQV AIKKIPNAFD VVTNAKRTLR ELKILKHFKH DNIIAIKDIL RPTVPYGEFK SVYVVLDLME SDLHQIIHSS QPLTLEHVRY FLYQLLRGLK YMHSAQVIHR DLKPSNLLVN ENCELKIGDF GMARGLCTSP AEHQYFMTEY VATRWYRAPE LMLSLHEYTQ AIDLWSVGCI FGEMLARRQL FPGKNYVHQL QLIMMVLGTP SPAVIQAVGA ERVRAYIQSL PPRQPVPWET VYPGADRQAL SLLGRMLRFE PSARISAAAA LRHPFLAKYH DPDDEPDCAP PFDFAFDREA LTRERIKEAI VAEIEDFHAR REGIRQQIRF QPSLQPVASE PGCPDVEMPS PWAPSGDCAM ESPPPAPPPC PGPAPDTIDL TLQPPPPVSE PAPPKKDGAI SDNTKAALKA ALLKSLRSRL RDGPSAPLEA PEPRKPVTAQ ERQREREEKR RRRQERAKER EKRRQERERK ERGAGASGGP STDPLAGLVL SDNDRSLLER WTRMARPAAP ALTSVPAPAP APTPTPTPVQ PTSPPPGPVA QPTGPQPQSA GSTSGPVPQP ACPPPGPAPH PTGPPGPIPV PAPPQIATST SLLAAQSLVP PPGLPGSSTP GVLPYFPPGL PPPDAGGAPQ SSMSESPDVN LVTQQLSKSQ

	VEDPLPPVFS GTPKGSGAGY GVGFDLEEFL NQSFDMGVAD GPQDGQADSA SLSASLLADW LEGHGMNPAD IESLQREIQM DSPMLLADLP DLQDP **Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Human MAPK7 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.

Product Details

Grade:	Crystallography grade

Target Details

Target:	MAPK7
Alternative Name:	MAPK7 (MAPK7 Products)
Background:	Plays a role in various cellular processes such as proliferation, differentiation and cell survival. The upstream activator of MAPK7 is the MAPK kinase MAP2K5. Upon activation, it translocates to the nucleus and phosphorylates various downstream targets including MEF2C. EGF activates MAPK7 through a Ras-independent and MAP2K5-dependent pathway. May have a role in muscle cell differentiation. May be important for endothelial function and maintenance of blood vessel integrity. MAP2K5 and MAPK7 interact specifically with one another and not with MEK1/ERK1 or MEK2/ERK2 pathways. Phosphorylates SGK1 at Ser-78 and this is required for growth factor-induced cell cycle progression. Involved in the regulation of p53/TP53 by disrupting the PML-MDM2 interaction. {ECO:0000269|PubMed:11254654, ECO:0000269|PubMed:11278431, ECO:0000269|PubMed:22869143, ECO:0000269|PubMed:9384584, ECO:0000269|PubMed:9790194}.
Molecular Weight:	89.2 kDa Including tag.
UniProt:	Q13164
Pathways:	MAPK Signaling, Neurotrophin Signaling Pathway, Activation of Innate immune Response, cAMP Metabolic Process, Toll-Like Receptors Cascades, Negative Regulation of intrinsic apoptotic Signaling

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:	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