Datasheet for ABIN3131430

ASK1 Protein (AA 1-1380) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	ASK1 (MAP3K5)
Protein Characteristics:	AA 1-1380
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ASK1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MGTEAGEGIT FSVPPFASVG FCTIPEGGSC RRGGGAATAA EGEPSLQPLL VPPPPPPPGS FWNVESAAAP GTSCPTTAPG SSATRGRGNS GSGGGRRTTV AYVINEASQG QLVVAESEAL QSLREACEAV GATLETLHFG KLDFGETAVL DRFYNADIAV VEMSDAFRQP SLFYHLGVRE SFSMANNIIL YCDTNSDSLQ SLKEIICQKN TVCTGNYTFI PYMVTPHNKV YCCDSSFMKG LTELMQPNFE LLLGPICLPL VDRFVQLLKV AQASSSQYFR ESILSDIRKA RNLYTGKELA AELARIRQRV DNIEVLTADI VINLLLSYRD IQDYDSIVKL VETLEKLPTF DLASHHHVKF HYAFALNRRN LPGDRAKALD IMIPMVQSEE QVASDMYCLV GRIYKDMFLD SNFTDTESRD HGASWFKKAF ESEPTLQSGI NYAVLLLAAG HQFESSFELR KVGVKLSSLL GKKGNLEKLQ SYWEVGFFLG ASVLANDHLR VIQASEKLFR LKTPAWYLKS IVETILIYKH FVKLTTEQPS AKQELVDFWM DFLVEATKTD VTVVRFPVLI LEPTKIYQPS YLSINNEVEE KTISIWHVLP DDKKGIHEWN FGASSVRGVS ISKFEERCCF LYVLHNSDDF QIYFCTELHC KRFFEMVNTI TEEKGRGAED GDCEGDSLEY DYEYDENGDR VVLGKGTYGI VYAGRDLSNQ VRIAIKEIPE

RDSRYSQPLH EEIALHKHLK HKNIVQYLGS FSENGFIKIF MEQVPGGSLS ALLRSKWGPL KDNEQTIGFY TKQILEGLKY LHDNQIVHRD IKGDNVLINT YSGVLKISDF GTSKRLAGIN PCTETFTGTL QYMAPEIIDK GPRGYGKAAD IWSLGCTIIE MATGKPPFYE LGEPQAAMFK VGMFKVHPEI PESMSAEAKA FILKCFEPDP DKRACANDLL IDEFLKVSSK KKKTQPKLSA LSTGSNEYLR SISLPVPVLV EDTSSSSEYG SVSPDTELKA DPFSFKARAK SCGEKDGKGI RTLFLGIPDE NFEDHSAPPS PEEKDSGFFM LRKDSERRAT LHRILTEDQD KVVRNLMESL AQGAEEPKLK WEHITTLISS LREFVRSTDR KIIATTLSKL KLELDFDSHG ISQVQVVLFG FQDAVNKVLR NHNIKPHWMF ALDSIIRKAV QTAITILVPE LRPHFSLASE SDTADPEDLD VEDEHEELSS NQTVRRPQAI TEDAVATSGV STLSSTVSHD SQNAHRSLNV QLGRMKIETN RLLEELVRKE RELQALLHQA IEEKDQEIRH LKLKSQPIDI PGFPVCHLNS PGTTTEDSEL PGWLRENGAD EDTISRFLAE DYTLVDVLYY VTRDDLKCLR LRGGMLCTLW KAIIDFRNKC

Sequence without tag. The proposed Strep-Tag is based on experience s with 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:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to

Product Details

	produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein! Concentration: • 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. • We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): 1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. 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:	≥ 80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

Target Details

Target:	ASK1 (MAP3K5)
Alternative Name:	Map3k5 (MAP3K5 Products)
Background:	Mitogen-activated protein kinase kinase kinase 5 (EC 2.7.11.25) (Apoptosis signal-regulating kinase 1) (ASK-1) (MAPK/ERK kinase kinase 5) (MEK kinase 5) (MEKK 5),FUNCTION: Serine/threonine kinase which acts as an essential component of the MAP kinase signal transduction pathway. Plays an important role in the cascades of cellular responses evoked by changes in the environment. Mediates signaling for determination of cell fate such as differentiation and survival. Plays a crucial role in the apoptosis signal transduction pathway through mitochondria-dependent caspase activation. MAP3K5/ASK1 is required for the innate immune response, which is essential for host defense against a wide range of pathogens. Mediates signal transduction of various stressors like oxidative stress as well as by receptor-mediated inflammatory signals, such as the tumor necrosis factor (TNF) or lipopolysaccharide (LPS). 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

Target Details

	activation of several MAP kinase kinases like MAP2K4/SEK1, MAP2K3/MKK3, MAP2K6/MKK6 and MAP2K7/MKK7. These MAP2Ks in turn activate p38 MAPKs and c-jun N-terminal kinases (JNKs). Both p38 MAPK and JNKs control the transcription factors activator protein-1 (AP-1). {ECO:0000269|PubMed:11266364, ECO:0000269|PubMed:14749717, ECO:0000269|PubMed:15864310, ECO:0000269|PubMed:16527894, ECO:0000269|PubMed:16648474}.
Molecular Weight:	154.5 kDa
UniProt:	O35099
Pathways:	MAPK Signaling, Positive Regulation of Endopeptidase Activity, Unfolded Protein Response

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:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C

Handling

Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)