

Datasheet for ABIN3093680

ASK1 Protein (AA 1-1374) (Strep Tag)



[Go to Product page](#)

Overview

Quantity:	250 µg
Target:	ASK1 (MAP3K5)
Protein Characteristics:	AA 1-1374
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ASK1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
Sequence:	<p>MSTEADegIT FSVPPFAPSG FCTIPEGGIC RRGAAAVGE GEEHQLPPPP PGsFWNVESA AAPGIGCPAA TSSSSATRGR GSSVGGGSRR TTVAYVINEA SQGQLVVAES EALQSLREAC ETVGATLETL HFGKLDfGET TVLDRfYNAD IAVVEMSDAF RQPSLFYHLG VRESFSMANN IILYCDTNSD SLQSLKEIIC QKNTMCTGNY TFVPYMITPH NKVYCCDSSF MKGLTELMQP NFELLGPIC LPLVDRFIQL LKVAQASSSQ YFRESILNDI RKARNLYTGK ELAAELARIR QRVDNIEVLT ADIVINLLLS YRDIQDYDSI VKLVETLEKL PTFDLASHHH VKFHYAFALN RRNLPGDRAK ALDIMIPMVQ SEGQVASDMY CLVGRIYKDM FLDSNFTDTE SRDHGASWFK KAFESPTLQ SGINYAVLLL AAGHQFESSF ELRKVGVKLS SLLGKKGNLE KLQSYWEVGF FLGASVLAND HMRVIQASEK LFKLKTPAWY LKSIVETILI YKHfVKLTTE QPVAKQELVD FWMDFLVEAT KTDVTVVRFP VLILEPTKIY QPSYLSINNE VEEKTISIWH VLPDDKKGIH EWNFSASSVR GVSISKFEER CCFLYVLHNS DDFQIYFCTE LHCKKFFEMV NTITEEKGRS</p>

TEEGDCESDL LEYDYEYDEN GDRVVLGKGT YGIVYAGRDL SNQVRIAIKE IPERDSRYSQ
PLHEEIALHK HLKHKNIQY LGSFSENGFI KIFMEQVPGG SLSALLRSKW GPLKDNEQTI
GFYTKQILEG LKYLHDNQIV HRDIKGDNLV INTYSGVLKI SDFGTSKRLA GINPCTETFT
GTLQYMAPEI IDKGPRGYGK AADIWSLGCT IEMATGKPP FYELGEPQAA MFKVGMFKVH
PEIPESMSAE AKAFILKCFE PDPDKRACAN DLLVDEFLKV SSKKKKTQPK LSALSAGSNE
YLRISLPVP VLVEDTSSSS EYGSVSPDTE LKVDPFSFKT RAKSCGERDV KGIRTLFLGI
PDENFEDHSA PPSPEEKDSG FFMLRKDSER RATLHRILTE DQDKIVRNLM ESLAQGAEEP
KLKWEHITTL IASLREFVRS TDRKIIATTL SKLLELDFD SHGISQVQV LFGFQDAVNK
VLRNHNKPH WMFALDSIIR KAVQTAITIL VPELRPHFSL ASEDSTADQE DLDVEDDHEE
QPSNQTVRRP QAVIEDAVAT SGVSTLSSTV SHDSQSAHRS LNVQLGRMKI ETNRLLEELV
RKEKELQALL HRAIEEKDQE IKHLKLKSQL IEIPELPVFH LNSSGTNTED SELTDWLRVN
GADEDTISRF LAEDYTLLDV LYYVTRDDLK CLRLRGMLC TLWKAIDFR NKQT

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 in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	ASK1 (MAP3K5)
Alternative Name:	MAP3K5 (MAP3K5 Products)
Background:	<p>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 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).</p> <p>{ECO:0000269 PubMed:10411906, ECO:0000269 PubMed:10688666, ECO:0000269 PubMed:10849426, ECO:0000269 PubMed:11029458,</p>

Target Details

ECO:0000269|PubMed:11154276, ECO:0000269|PubMed:11689443,
ECO:0000269|PubMed:11920685, ECO:0000269|PubMed:14688258,
ECO:0000269|PubMed:14749717, ECO:0000269|PubMed:15023544,
ECO:0000269|PubMed:16129676, ECO:0000269|PubMed:17220297,
ECO:0000269|PubMed:23102700, ECO:0000269|PubMed:26095851,
ECO:0000269|PubMed:8940179, ECO:0000269|PubMed:8974401,
ECO:0000269|PubMed:9564042, ECO:0000269|PubMed:9774977}.

Molecular Weight: 154.5 kDa

UniProt: [Q99683](#)

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.
Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**

Handling Advice: Avoid repeated freeze-thaw cycles.

Handling

Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months