Datasheet for ABIN7554476

# ASK1 Protein (AA 1-1374) (His tag)

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## Overview

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| Quantity: | 1 mg |
| Target: | ASK1 (MAP3K5) |
| Protein Characteristics: | AA 1-1374 |
| Origin: | Human |
| Source: | HEK-293 Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This ASK1 protein is labelled with His tag. |

## Product Details

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| Purpose: | Custom-made recombinant MAP3K5 Protein expressed in mammalian cells. |
| Sequence: | MSTEADEGIT FSVPPFAPSG FCTIPEGGIC RRGGAAAVGE GEEHQLPPPP PGSFWNVESA AAPGIGCPAA TSSSSATRGR GSSVGGGSRR TTVAYVINEA SQGQLVVAES EALQSLREAC ETVGATLETL HFGKLDFGET TVLDRFYNAD IAVVEMSDAF RQPSLFYHLG VRESFSMANN IILYCDTNSD SLQSLKEIIC QKNTMCTGNY TFVPYMITPH NKVYCCDSSF MKGLTELMQP NFELLLGPIC LPLVDRFIQL LKVAQASSSQ YFRESILNDI RKARNLYTGK ELAAELARIR QRVDNIEVLT ADIVINLLLS YRDIQDYDSI VKLVETLEKL PTFDLASHHH VKFHYAFALN RRNLPGDRAK ALDIMIPMVQ SEGQVASDMY CLVGRIYKDM FLDSNFTDTE SRDHGASWFK KAFESEPTLQ SGINYAVLLL AAGHQFESSF ELRKVGVKLS SLLGKKGNLE KLQSYWEVGF FLGASVLAND HMRVIQASEK LFKLKTPAWY LKSIVETILI YKHFVKLTTE QPVAKQELVD FWMDFLVEAT KTDVTVVRFP VLILEPTKIY QPSYLSINNE VEEKTISIWH VLPDDKKGIH EWNFSASSVR GVSISKFEER CCFLYVLHNS DDFQIYFCTE LHCKKFFEMV NTITEEKGRS TEEGDCESDL LEYDYEYDEN GDRVVLGKGT YGIVYAGRDL SNQVRIAIKE IPERDSRYSQ |

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| | PLHEEIALHK HLKHKNIVQY LGSFSENGFI KIFMEQVPGG SLSALLRSKW GPLKDNEQTI GFYTKQILEG LKYLHDNQIV HRDIKGDNVL INTYSGVLKI SDFGTSKRLA GINPCTETFT GTLQYMAPEI IDKGPRGYGK AADIWSLGCT IIEMATGKPP FYELGEPQAA MFKVGMFKVH PEIPESMSAE AKAFILKCFE PDPDKRACAN DLLVDEFLKV SSKKKKTQPK LSALSAGSNE YLRSISLPVP VLVEDTSSSS EYGSVSPDTE LKVDPFSFKT RAKSCGERDV KGIRTLFLGI PDENFEDHSA PPSPEEKDSG FFMLRKDSER RATLHRILTE DQDKIVRNLM ESLAQGAEEP KLKWEHITTL IASLREFVRS TDRKIIATTL SKLKLELDFD SHGISQVQVV LFGFQDAVNK VLRNHNIKPH WMFALDSIIR KAVQTAITIL VPELRPHFSL ASESDTADQE DLDVEDDHEE QPSNQTVRRP QAVIEDAVAT SGVSTLSSTV SHDSQSAHRS LNVQLGRMKI ETNRLLEELV RKEKELQALL HRAIEEKDQE IKHLKLKSQP IEIPELPVFH LNSSGTNTED SELTDWLRVN GADEDTISRF LAEDYTLLDV LYYVTRDDLK CLRLRGGMLC TLWKAIIDFR NKQT **Sequence without tag. The proposed Purification-Tag is based on experiences 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.** |
| Specificity: | If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer. |
| Characteristics: | Key Benefits:<br>• Made to order protein - from design to production - by highly experienced protein experts.<br>• Protein expressed in mammalian cells and purified in one-step affinity chromatography<br>• The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.<br>• State-of-the-art algorithm used for plasmid design (Gene synthesis).<br><br>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.<br><br>If you are not interested in a full length protein, please contact us for individual protein fragments.<br><br>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. |
| Purity: | > 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC) |
| Grade: | custom-made |

## Target Details

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| 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 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:10411906, ECO:0000269\|PubMed:10688666, ECO:0000269\|PubMed:10849426, ECO:0000269\|PubMed:11029458, 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

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| Application Notes: | We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though. |

## Application Details

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| Restrictions: | For Research Use only |

## Handling

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| Format: | Liquid |
| Buffer: | The buffer composition 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: | 12 months |