Datasheet for ABIN7554515

MAPKAP Kinase 2 Protein (AA 1-400) (His tag)

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Overview

Quantity:	1 mg
Target:	MAPKAP Kinase 2 (MAPKAPK2)
Protein Characteristics:	AA 1-400
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MAPKAP Kinase 2 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat MAPKAPK2 Protein expressed in mammalien cells.
Sequence:	MLSNSQGQSP PVPFPAPAPP PQPPTPALPH PPAQPPPPPP QQFPQFHVKS GLQIKKNAII DDYKVTSQVL GLGINGKVLQ IFNKRTQEKF ALKMLQDCPK ARREVELHWR ASQCPHIVRI VDVYENLYAG RKCLLIVMEC LDGGELFSRI QDRGDQAFTE REASEIMKSI GEAIQYLHSI NIAHRDVKPE NLLYTSKRPN AILKLTDFGF AKETTSHNSL TTPCYTPYYV APEVLGPEKY DKSCDMWSLG VIMYILLCGY PPFYSNHGLA ISPGMKTRIR MGQYEFPNPE WSEVSEEVKM LIRNLLKTEP TQRMTITEFM NHPWIMQSTK VPQTPLHTSR VLKEDKERWE DVKEEMTSAL ATMRVDYEQI KIKKIEDASN PLLLKRRKKA RALEAAALAH **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.**
Characteristics:	Key Benefits:

Product Details

	• Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalien cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • 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. If you are not interested in a full length protein, please contact us for individual protein fragments. 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, Western Blot
Grade:	custom-made

Target Details

Target:	MAPKAP Kinase 2 (MAPKAPK2)
Alternative Name:	MAPKAPK2 (MAPKAPK2 Products)
Background:	MAP kinase-activated protein kinase 2 (MAPK-activated protein kinase 2) (MAPKAP kinase 2) (MAPKAP-K2) (MAPKAPK-2) (MK-2) (MK2) (EC 2.7.11.1),FUNCTION: Stress-activated serine/threonine-protein kinase involved in cytokine production, endocytosis, reorganization of the cytoskeleton, cell migration, cell cycle control, chromatin remodeling, DNA damage response and transcriptional regulation. Following stress, it is phosphorylated and activated by MAP kinase p38-alpha/MAPK14, leading to phosphorylation of substrates. Phosphorylates serine in the peptide sequence, Hyd-X-R-X(2)-S, where Hyd is a large hydrophobic residue. Phosphorylates ALOX5, CDC25B, CDC25C, CEP131, ELAVL1, HNRNPA0, HSP27/HSPB1, KRT18, KRT20, LIMK1, LSP1, PABPC1, PARN, PDE4A, RCSD1, RPS6KA3, TAB3 and TTP/ZFP36. Phosphorylates HSF1, leading to the interaction with HSP90 proteins and inhibiting HSF1 homotrimerization, DNA-binding and transactivation activities (PubMed:16278218). Mediates phosphorylation of HSP27/HSPB1 in response to stress, leading to the dissociation of HSP27/HSPB1 from large small heat-shock protein (sHsps) oligomers and impairment of their chaperone activities and ability to protect against oxidative stress effectively. Involved in

Target Details

	inflammatory response by regulating tumor necrosis factor (TNF) and IL6 production post-transcriptionally: acts by phosphorylating AU-rich elements (AREs)-binding proteins ELAVL1, HNRNPA0, PABPC1 and TTP/ZFP36, leading to the regulation of the stability and translation of TNF and IL6 mRNAs. Phosphorylation of TTP/ZFP36, a major post-transcriptional regulator of TNF, promotes its binding to 14-3-3 proteins and reduces its ARE mRNA affinity, leading to inhibition of dependent degradation of ARE-containing transcripts. Phosphorylates CEP131 in response to cellular stress induced by ultraviolet irradiation which promotes binding of CEP131 to 14-3-3 proteins and inhibits formation of novel centriolar satellites (PubMed:26616734). Also involved in late G2/M checkpoint following DNA damage through a process of post-transcriptional mRNA stabilization: following DNA damage, relocalizes from nucleus to cytoplasm and phosphorylates HNRNPA0 and PARN, leading to stabilization of GADD45A mRNA. Involved in toll-like receptor signaling pathway (TLR) in dendritic cells: required for acute TLR-induced macropinocytosis by phosphorylating and activating RPS6KA3. {ECO:0000269|PubMed:10383393, ECO:0000269|PubMed:11844797, ECO:0000269|PubMed:12456657, ECO:0000269|PubMed:12565831, ECO:0000269|PubMed:14499342, ECO:0000269|PubMed:14517288, ECO:0000269|PubMed:15014438, ECO:0000269|PubMed:15629715, ECO:0000269|PubMed:16278218, ECO:0000269|PubMed:16456544, ECO:0000269|PubMed:17481585, ECO:0000269|PubMed:18021073, ECO:0000269|PubMed:20932473, ECO:0000269|PubMed:26616734, ECO:0000269|PubMed:8093612, ECO:0000269|PubMed:8280084, ECO:0000269|PubMed:8774846}.
Molecular Weight:	45.6 kDa
UniProt:	P49137
Pathways:	MAPK Signaling, Neurotrophin Signaling Pathway, Activation of Innate immune Response, Toll-Like Receptors Cascades

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.
Restrictions:	For Research Use only

Handling

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