Datasheet for ABIN7555732

TAO Kinase 1 (TAOK1) (AA 1-1001) protein (His tag)

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Overview

Quantity:	1 mg
Target:	TAO Kinase 1 (TAOK1)
Protein Characteristics:	AA 1-1001
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	His tag

Product Details

Purpose:	Custom-made recombinant TAOK1 Protein expressed in mammalian cells.
Sequence:	MPSTNRAGSL KDPEIAELFF KEDPEKLFTD LREIGHGSFG AVYFARDVRT NEVVAIKKMS YSGKQSTEKW QDIIKEVKFL QRIKHPNSIE YKGCYLREHT AWLVMEYCLG SASDLLEVHK KPLQEVEIAA ITHGALQGLA YLHSHTMIHR DIKAGNILLT EPGQVKLADF GSASMASPAN SFVGTPYWMA PEVILAMDEG QYDGKVDVWS LGITCIELAE RKPPLFNMNA MSALYHIAQN ESPTLQSNEW SDYFRNFVDS CLQKIPQDRP TSEELLKHIF VLRERPETVL IDLIQRTKDA VRELDNLQYR KMKKLLFQEA HNGPAVEAQE EEEEQDHGVG RTGTVNSVGS NQSIPSMSIS ASSQSSSVNS LPDVSDDKSE LDMMEGDHTV MSNSSVIHLK PEEENYREEG DPRTRASDPQ SPPQVSRHKS HYRNREHFAT IRTASLVTRQ MQEHEQDSEL REQMSGYKRM RRQHQKQLMT LENKLKAEMD EHRLRLDKDL ETQRNNFAAE MEKLIKKHQA AMEKEAKVMS NEEKKFQQHI QAQQKKELNS FLESQKREYK LRKEQLKEEL NENQSTPKKE KQEWLSKQKE NIQHFQAEEE ANLLRRQRQY LELECRRFKR RMLLGRHNLE QDLVREELNK RQTQKDLEHA MLLRQHESMQ ELEFRHLNTI QKMRCELIRL QHQTELTNQL EYNKRRREREL RRKHVMEVRQ QPKSLKSKEL

Product Details

	QIKKQFQDTC KIQTRQYKAL RNHLLETTPK SEHKAVLKRL KEEQTRKLAI LAEQYDHSIN EMLSTQALRL DEAQEAECQV LKMQLQQELE LLNAYQSKIK MQAEAQHDRE LRELEQRVSL RRALLEQKIE EEMLALQNER TERIRSLLER QAREIEAFDS ESMRLGFSNM VLSNLSPEAF SHSYPGASGW SHNPTGGPGP HWGHPMGGPP QAWGHPMQGG PQPWGHPSGP MQGVPRGSSM GVRNSPQALR RTASGGRTEQ GMSRSTSVTS QISNGSHMSY T **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: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian 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, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	TAO Kinase 1 (TAOK1)
Alternative Name:	TAOK1 (TAOK1 Products)
Background:	Serine/threonine-protein kinase TAO1 (EC 2.7.11.1) (Kinase from chicken homolog B) (hKFC-B) (MARK Kinase) (MARKK) (Prostate-derived sterile 20-like kinase 2) (PSK-2) (PSK2) (Prostate-derived STE20-like kinase 2) (Thousand and one amino acid protein kinase 1) (TAOK1)

Target Details

	(hTAOK1),FUNCTION: Serine/threonine-protein kinase involved in various processes such as p38/MAPK14 stress-activated MAPK cascade, DNA damage response and regulation of cytoskeleton stability. Phosphorylates MAP2K3, MAP2K6 and MARK2. Acts as an activator of the p38/MAPK14 stress-activated MAPK cascade by mediating phosphorylation and subsequent activation of the upstream MAP2K3 and MAP2K6 kinases. Involved in G-protein coupled receptor signaling to p38/MAPK14. In response to DNA damage, involved in the G2/M transition DNA damage checkpoint by activating the p38/MAPK14 stress-activated MAPK cascade, probably by mediating phosphorylation of MAP2K3 and MAP2K6. Acts as a regulator of cytoskeleton stability by phosphorylating 'Thr-208' of MARK2, leading to activate MARK2 kinase activity and subsequent phosphorylation and detachment of MAPT/TAU from microtubules. Also acts as a regulator of apoptosis: regulates apoptotic morphological changes, including cell contraction, membrane blebbing and apoptotic bodies formation via activation of the MAPK8/JNK cascade. Plays an essential role in the regulation of neuronal development in the central nervous system (PubMed:33565190). Also plays a role in the regulation of neuronal migration to the cortical plate (By similarity). {ECO:0000250|UniProtKB:Q5F2E8, ECO:0000269|PubMed:12665513, ECO:0000269|PubMed:13679851, ECO:0000269|PubMed:16407310, ECO:0000269|PubMed:17396146, ECO:0000269|PubMed:17900936, ECO:0000269|PubMed:33565190}.
Molecular Weight:	116.1 kDa
UniProt:	Q7L7X3

Application Details

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.
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

Handling

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