

Datasheet for ABIN3095844

TAO Kinase 1 (TAOK1) (AA 1-1001) protein (His tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	TAO Kinase 1 (TAOK1)
Protein Characteristics:	AA 1-1001
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	His tag
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	MPSTNRAGSL KDPEIAELFF KEDPEKLFTD LREIGHGSFG AVYFARDVRT NEVVAIKKMS YSGKQSTEW QDIIKEVKFL QRIKHPNSIE YKGCYLREHT AWLVMEYCLG SASDLLEVHK KPLQEVEIAA ITHGALQGLA YLHSHTMIHR DIKAGNILLT EPGQVKLADF GSASMASPAN SFVGTPYWMA PEVILAMDEG QYDGKVDVWS LGITCIELAE RKPPLFNMNA MSALYHIAQN ESPTLQSNW SDYFRNFVDS CLQKIPQDRP TSEELLKHIF VLRERPETVL IDLIQRTKDA VRELDNLQYR KMKKLLFQEA HNGPAVEAQE EEEQDHGVG RTGTVNSVGS NQSIPSMSIS ASSQSSSVNS LPDVSDDKSE LDMMEGDHTV MSNSSVIHLK PEEENYREEG DPRTRASDPQ SPPQVSRHKS HYRNREHFAT IRTASLVTRQ MQEHEQDSEL REQMSGYKRM RRQHQQQLMT LENKLKAEMD EHRLRLDKDL ETQRNNFAAE MEKLIKHHQA AMEKEAKVMS NEEKKFQQHI QAAQKKELNS FLESQKREYK LRKEQLKEEL NENQSTPKKE KQEWLSKQKE NIQHFQAEED ANLLRRQRQY LELECRRFKR RMLLGRHNLE QDLVREELNK RQTQKDLEHA MLLRQHESMQ ELEFRHLNTI QKMRCELIRL QHQTETLNQL EYNKRREREL RRKHVMEVRQ QPKSLKSKEL
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QIKKQFQDTC KIQTRQYKAL RNHLLETPK SEHKAVLKRL KEEQTRKLAI LAEQYDHSIN
EMLSTQALRL DEAEAEQCV LKMQLQEQLE LLNAYQSKIK MQAEAQHDRE LRELEQRVSL
RRALLEQKIE EEMLALQNER TERIRSLER QAREIEAFDS ESMRLGFSNM VLSNLSPEAF
SHSYPGASGW SHNPTGGPGP HWGHPMGPP QAWGHPMQGG PQPWGHPSPG
MQGVPRGSSM GVRNSPQALR RTASGGRTAQ GMSRSTSVTS QISNGSHMSY T

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human TAOK1 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

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.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's protParam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. 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.

Product Details

Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	TAO Kinase 1 (TAOK1)
Alternative Name:	TAOK1 (TAOK1 Products)
Background:	<p>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. {ECO:0000269 PubMed:12665513, ECO:0000269 PubMed:13679851, ECO:0000269 PubMed:16407310, ECO:0000269 PubMed:17396146, ECO:0000269 PubMed:17900936}.</p>
Molecular Weight:	117.0 kDa Including tag.
UniProt:	Q7L7X3

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:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to

Application Details

increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value 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:	Unlimited (if stored properly)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process