Datasheet for ABIN3119053

TAO Kinase 2 Protein (TAOK2) (AA 1-1235) (Strep Tag)

Go to Product page

Overview

Quantity:	250 µg
Target:	TAO Kinase 2 (TAOK2)
Protein Characteristics:	AA 1-1235
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TAO Kinase 2 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MPAGGRAGSL KDPDVAELFF KDDPEKLFSD LREIGHGSFG AVYFARDVRN SEVVAIKKMS YSGKQSNEKW QDIIKEVRFL QKLRHPNTIQ YRGCYLREHT AWLVMEYCLG SASDLLEVHK KPLQEVEIAA VTHGALQGLA YLHSHNMIHR DVKAGNILLS EPGLVKLGDF GSASIMAPAN SFVGTPYWMA PEVILAMDEG QYDGKVDVWS LGITCIELAE RKPPLFNMNA MSALYHIAQN ESPVLQSGHW SEYFRNFVDS CLQKIPQDRP TSEVLLKHRF VLRERPPTVI MDLIQRTKDA VRELDNLQYR KMKKILFQEA PNGPGAEAPE EEEEAEPYMH RAGTLTSLES SHSVPSMSIS ASSQSSSVNS LADASDNEEE EEEEEEEEEE EEGPEAREMA MMQEGEHTVT SHSSIIHRLP GSDNLYDDPY QPEITPSPLQ PPAAPAPTST TSSARRRAYC RNRDHFATIR TASLVSRQIQ EHEQDSALRE QLSGYKRMRR QHQKQLLALE SRLRGEREEH SARLQRELEA QRAGFGAEAE KLARRHQAIG EKEARAAQAE ERKFQQHILG QQKKELAALL EAQKRTYKLR KEQLKEELQE NPSTPKREKA EWLLRQKEQL QQCQAEEEAG LLRRQRQYFE LQCRQYKRKM LLARHSLDQD

LLREDLNKKQ TQKDLECALL LRQHEATREL ELRQLQAVQR TRAELTRLQH QTELGNQLEY NKRREQELRQ KHAAQVRQQP KSLKVRAGQR PPGLPLPIPG ALGPPNTGTP IEQQPCSPGQ EAVLDQRMLG EEEEAVGERR ILGKEGATLE PKQQRILGEE SGAPSPSPQK HGSLVDEEVW GLPEEIEELR VPSLVPQERS IVGQEEAGTW SLWGKEDESL LDEEFELGWV QGPALTPVPE EEEEEEEGAP IGTPRDPGDG CPSPDIPPEP PPTHLRPCPA SQLPGLLSHG LLAGLSFAVG SSSGLLPLLL LLLLPLLAAQ GGGGLQAALL ALEVGLVGLG ASYLLLCTAL HLPSSLFLLL AQGTALGAVL GLSWRRGLMG VPLGLGAAWL LAWPGLALPL VAMAAGGRWV RQQGPRVRRG ISRLWLRVLL RLSPMAFRAL QGCGAVGDRG LFALYPKTNK DGFRSRLPVP GPRRRNPRTT QHPLALLARV WVLCKGWNWR LARASQGLAS HLPPWAIHTL ASWGLLRGER PTRIPRLLPR SQRQLGPPAS RQPLPGTLAG RRSRTRQSRA LPPWR

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 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!

Product Details

	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:	TAO Kinase 2 (TAOK2)
Alternative Name:	TAOK2 (TAOK2 Products)
Background:	Serine/threonine-protein kinase TAO2 (EC 2.7.11.1) (Kinase from chicken homolog C) (hKFC-C) (Prostate-derived sterile 20-like kinase 1) (PSK-1) (PSK1) (Prostate-derived STE20-like kinase 1) (Thousand and one amino acid protein kinase 2),FUNCTION: Serine/threonine-protein kinase involved in different processes such as membrane blebbing and apoptotic bodies formation DNA damage response and MAPK14/p38 MAPK stress-activated MAPK cascade. Phosphorylates itself, MBP, activated MAPK8, MAP2K3, MAP2K6 and tubulins. Activates the MAPK14/p38 MAPK signaling pathway through the specific activation and phosphorylation of the upstream MAP2K3 and MAP2K6 kinases. 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 upstream MAP2K3 and MAP2K6 kinases. Isoform 1, but not isoform 2, plays a role in apoptotic morphological changes, including cell contraction, membrane blebbing and apoptotic bodies formation. This function, which requires the activation of MAPK8/JNK and nuclear localization of C-terminally truncated isoform 1, may be linked to the mitochondrial CASP9-associated death pathway. Isoform 1 binds to microtubules and affects their organization and stability independently of its kinase activity. Prevents MAP3K7-mediated activation of CHUK, and thus NF-kappa-B activation, but not that of MAPK8/JNK. May play a role in the osmotic stress-MAPK8 pathway. Isoform 2, but not isoform 1, is required for PCDH8 endocytosis. Following homophilic interactions between PCDH8 extracellular domains, isoform 2 phosphorylates and activates MAPK14/p38 MAPK which in turn phosphorylates isoform 2. This process leads to PCDH8 endocytosis and CDH2

Target Details

	cointernalization. Both isoforms are involved in MAPK14 phosphorylation. {ECO:0000269|PubMed:10660600, ECO:0000269|PubMed:11279118, ECO:0000269|PubMed:12639963, ECO:0000269|PubMed:12665513, ECO:0000269|PubMed:13679851, ECO:0000269|PubMed:16893890, ECO:0000269|PubMed:17158878, ECO:0000269|PubMed:17396146}.
Molecular Weight:	138.3 kDa
UniProt:	Q9UL54
Pathways:	Cell-Cell Junction Organization

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.
Storage:	-80 °C
Storage Comment:	Store at -80°C.

Handling

Expiry Date:	12 months

