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Datasheet for ABIN7564168

**TAO Kinase 2 Protein (TAOK2) (AA 1-1240) (His tag)**

## Overview

Quantity:	1 mg
Target:	TAO Kinase 2 (TAOK2)
Protein Characteristics:	AA 1-1240
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TAO Kinase 2 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

## Product Details

Purpose:	Custom-made recombinat Taok2 Protein expressed in mammalien cells.
Sequence:	MPAGGRAGSL KDPDVAELFF KDDPEKLFSD LREIGHGSFG AVYFARDVRN SEVVAIKKMS YSGKQSNEKW QDIIKEVRFL QKLRHPNTIQ YRGCYLREHT AWLVMEYCLG SASDLLEVHK KPLQEVEIAA VTHGALQGLA YLHSHNMIHR DVKAGNILLS EPGLVKLGDF GSASIMAPAN SFVGTPTYWMA PEVILAMDEG QYDGKVDVWS LGITCIELAE RKPPLFMNA MSALYHIAQN ESPALQSGHW SEYFRNFVDS CLQKIPQDRP TSEVLLKHRF VLRERPPTVI MDLIQRTKDA VRELDNLQYR KMKKILFQEA PNGPGAEAPE EEELTPCSQE AEPYTHRAGT LTSLESSHSV PSMSISASSQ SSSVNSLADA SDNEEEEEEE EEEEEEEEEEE GPESREMAMM QEGEHTVTSH SSIIHRLPGS DNLYDDPYQP EMTGPLQPP AAPPTSTSSS ARRRAYCRNR DHFATIRTAS LVSRQIQEHE QDSALREQLS GYKRMRRQHQ KQLLALESRL RGEREEHSGR LQRELEAQRA GFGTEAEKLA RRRQAIGEKE ARAAQAEERK FQQHILGQOK KELAALLEAQ KRTYKLRKEQ LKEELQENPS TPKREKAEWL LRQKEQLQOC QAEEEEAGLLR RQRQYFELQC RQYKRKMLLA

RHSLDQDLLR EDLNKKQTQK DLECALLLRQ HEATRELELR QLQAVQRTRA ELTRLQHQTE  
LGNQLEYNKR REQELRQKHA AQVRQQPKSL KVRAGQLPMG LPATGALGPL STGTPSEEQP  
CSSGQEAILD QRMLGEEEEA VPERRILGKE GTTLEPEEQR ILGEEMGTFS SSPQKHRSLA  
NEEDWDISEE MKEIRVPSLA SQERNIIGQE EAAAWSLWEK EGGNLVDVEF KLGWVQGPVL  
TPVPEEEEEEE EEEGGAPIGT HRDPGDGCPD PDIPPEPPPS HLRQYPTSQL PGLLSHGLLA  
GLSFAVGSSS GLLPLLLLLL LPLLAQGGG GLQAALLALE VGLVGLGASY LFLCTALHLP  
PGLFLLLAQG TALLAVLSLS WRRGLMGVPL GLGAAWLLAW PSLALPLAAM AAGGKWVRQQ  
GPQMRRGISR LWLRILLRLS PMVFRALQGC GAVGDRGLFA LYPKTNKNGF RSRLPVPWPR  
QGNPRTTQHP LAQLTRVWAV CKGWNWRLAR ASHRLASCLP PWAVHILASW GLLKGERPSR  
IPRLLPRSQR RLGLSASRQL PPGTVAGRRS QTRRTLPPWR **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.**

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### 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.

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### Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

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### Grade:

custom-made

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## Target Details

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### Target:

TAO Kinase 2 (TAOK2)

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### Alternative Name:

Taok2 ([TAOK2 Products](#))

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## Target Details

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**Background:** Serine/threonine-protein kinase TAO2 (EC 2.7.11.1) (Thousand and one amino acid protein 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. May affect microtubule organization and stability. May play a role in the osmotic stress-MAPK8 pathway. Prevents MAP3K7-mediated activation of CHUK, and thus NF-kappa-B activation. 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 cointernalization. Both isoforms are involved in MAPK14/p38 MAPK activation (By similarity). {ECO:0000250}.

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**Molecular Weight:** 139.3 kDa

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**UniProt:** [Q6ZQ29](#)

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**Pathways:** [Cell-Cell Junction Organization](#)

## Application Details

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**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.

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**Restrictions:** For Research Use only

## Handling

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**Format:** Liquid

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**Buffer:** The buffer composition is at the discretion of the manufacturer.

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**Handling Advice:** Avoid repeated freeze-thaw cycles.

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**Storage:** -80 °C

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**Storage Comment:** Store at -80°C.

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## Handling

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Expiry Date: 12 months