Datasheet for ABIN7565222

TBK1 Protein (AA 1-729) (His tag)

Go to Product page

Overview

Quantity:	1 mg
Target:	TBK1
Protein Characteristics:	AA 1-729
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TBK1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat Tbk1 Protein expressed in mammalien cells.
Sequence:	MQSTSNHLWL LSDILGQGAT ANVFRGRHKK TGDLYAVKVF NNISFLRPVD VQMREFEVLK KLNHKNIVKL FAIEEETTTR HKVLIMEFCP CGSLYTVLEE PSNAYGLPES EFLIVLRDVV GGMNHLRENG IVHRDIKPGN IMRVIGEDGQ SVYKLTDFGA ARELEDDEQF VSLYGTEEYL HPDMYERAVL RKDHQKKYGA TVDLWSVGVT FYHAATGSLP FRPFEGPRRN KEVMYKIITG KPSGAISGVQ KAENGPIDWS GDMPLSCSLS QGLQALLTPV LANILEADQE KCWGFDQFFA ETSDVLHRMV IHVFSLQHMT AHKIYIHSYN TAAVFHELVY KQTKIVSSNQ ELIYEGRRLV LELGRLAQHF PKTTEENPIF VTSREQLNTV GLRYEKISLP KIHPRYDLDG DASMAKAVTG VVCYACRTAS TLLLYQELMR KGVRWLVELV KDDYNETVHK KTEVVITLDF CIRNIEKTVK VYEKLMKVNL EAAELGEISD IHTKLLRLSS SQGTIESSLQ DISSRLSPGG LLADTWAHQE GTHPRDRNVE KLQVLLNCIT EIYYQFKKDK AERRLAYNEE QIHKFDKQKL YYHATKAMSH FSEECVRKYE AFKDKSEEWM RKMLHLRKQL LSLTNQCFDI EEEVSKYQDY TNELQETLPQ

Product Details

	KMLAASGGVK HAMAPIYPSS NTLVEMTLGM KKLKEEMEGV VKELAENNHI LERFGSLTMD GGLRNVDCL **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: • 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:	TBK1
Alternative Name:	Tbk1 (TBK1 Products)
Background:	Serine/threonine-protein kinase TBK1 (EC 2.7.11.1) (T2K) (TANK-binding kinase 1),FUNCTION: Serine/threonine kinase that plays an essential role in regulating inflammatory responses to foreign agents (PubMed:10581243, PubMed:15210742, PubMed:15661922). Following activation of toll-like receptors by viral or bacterial components, associates with TRAF3 and TANK and phosphorylates interferon regulatory factors (IRFs) IRF3 and IRF7 as well as DDX3X (By similarity). This activity allows subsequent homodimerization and nuclear translocation of the IRFs leading to transcriptional activation of pro-inflammatory and antiviral genes including IFNA and IFNB (By similarity). In order to establish such an antiviral state, TBK1 form several different complexes whose composition depends on the type of cell and cellular stimuli (By

Target Details

	similarity). Thus, several scaffolding molecules including FADD, TRADD, MAVS, AZI2, TANK or TBKBP1/SINTBAD can be recruited to the TBK1-containing-complexes (By similarity). Plays a key role in IRF3 activation: acts by first phosphorylating innate adapter proteins MAVS, STING1 and TICAM1 on their pLxIS motif, leading to recruitment of IRF3, thereby licensing IRF3 for phosphorylation by TBK1 (By similarity). Under particular conditions, functions as a NF-kappa-B effector by phosphorylating NF-kappa-B inhibitor alpha/NFKBIA, IKBKB or RELA to translocate NF-Kappa-B to the nucleus (By similarity). Restricts bacterial proliferation by phosphorylating the autophagy receptor OPTN/Optineurin on 'Ser-177', thus enhancing LC3 binding affinity and antibacterial autophagy (By similarity). Phosphorylates SMCR8 component of the C9orf72-SMCR8 complex, promoting autophagosome maturation (By similarity). Phosphorylates ATG8 proteins MAP1LC3C and GABARAPL2, thereby preventing their delipidation and premature removal from nascent autophagosomes (By similarity). Phosphorylates and activates AKT1 (By similarity). Seems to play a role in energy balance regulation by sustaining a state of chronic, low-grade inflammation in obesity, wich leads to a negative impact on insulin sensitivity (PubMed:23396211). {ECO:0000250|UniProtKB:Q9UHD2, ECO:0000269|PubMed:10581243, ECO:0000269|PubMed:15210742, ECO:0000269|PubMed:15661922, ECO:0000269|PubMed:23396211}.
Molecular Weight:	83.4 kDa
UniProt:	Q9WUN2
Pathways:	TLR Signaling, Activation of Innate immune Response, Hepatitis C, Toll-Like Receptors Cascades, SARS-CoV-2 Protein Interactome

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.

Handling

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