Datasheet for ABIN7554165

IKBKB Protein (AA 1-756) (His tag)

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Overview

Quantity:	1 mg
Target:	IKBKB
Protein Characteristics:	AA 1-756
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This IKBKB protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat IKBKB Protein expressed in mammalien cells.
Sequence:	MSWSPSLTTQ TCGAWEMKER LGTGGFGNVI RWHNQETGEQ IAIKQCRQEL SPRNRERWCL EIQIMRRLTH PNVVAARDVP EGMQNLAPND LPLLAMEYCQ GGDLRKYLNQ FENCCGLREG AILTLLSDIA SALRYLHENR IIHRDLKPEN IVLQQGEQRL IHKIIDLGYA KELDQGSLCT SFVGTLQYLA PELLEQQKYT VTVDYWSFGT LAFECITGFR PFLPNWQPVQ WHSKVRQKSE VDIVVSEDLN GTVKFSSSLP YPNNLNSVLA ERLEKWLQLM LMWHPRQRGT DPTYGPNGCF KALDDILNLK LVHILNMVTG TIHTYPVTED ESLQSLKARI QQDTGIPEED QELLQEAGLA LIPDKPATQC ISDGKLNEGH TLDMDLVFLF DNSKITYETQ ISPRPQPESV SCILQEPKRN LAFFQLRKVW GQVWHSIQTL KEDCNRLQQG QRAAMMNLLR NNSCLSKMKN SMASMSQQLK AKLDFFKTSI QIDLEKYSEQ TEFGITSDKL LLAWREMEQA VELCGRENEV KLLVERMMAL QTDIVDLQRS PMGRKQGGTL DDLEEQAREL YRRLREKPRD QRTEGDSQEM VRLLLQAIQS FEKKVRVIYT QLSKTVVCKQ KALELLPKVE EVVSLMNEDE KTVVRLQEKR QKELWNLLKI ACSKVRGPVS

Product Details

	GSPDSMNASR LSQPGQLMSQ PSTASNSLPE PAKKSEELVA EAHNLCTLLE NAIQDTVREQ DQSFTALDWS WLQTEEEEHS CLEQAS **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:	IKBKB
Alternative Name:	IKBKB (IKBKB Products)
Background:	Inhibitor of nuclear factor kappa-B kinase subunit beta (I-kappa-B-kinase beta) (IKK-B) (IKK-beta) (IkBKB) (EC 2.7.11.10) (I-kappa-B kinase 2) (IKK-2) (IKK2) (Nuclear factor NF-kappa-B inhibitor kinase beta) (NFKBIKB) (Serine/threonine protein kinase IKBKB) (EC 2.7.11.1),FUNCTION: Serine kinase that plays an essential role in the NF-kappa-B signaling pathway which is activated by multiple stimuli such as inflammatory cytokines, bacterial or viral products, DNA damages or other cellular stresses (PubMed:20434986, PubMed:20797629, PubMed:21138416, PubMed:9346484, PubMed:30337470). Acts as a part of the canonical IKK complex in the conventional pathway of NF-kappa-B activation (PubMed:9346484). Phosphorylates inhibitors of NF-kappa-B on 2 critical serine residues (PubMed:9346484,

Target Details

	PubMed:20434986, PubMed:20797629, PubMed:21138416). These modifications allow polyubiquitination of the inhibitors and subsequent degradation by the proteasome (PubMed:9346484, PubMed:20434986, PubMed:20797629, PubMed:21138416). In turn, free NF-kappa-B is translocated into the nucleus and activates the transcription of hundreds of genes involved in immune response, growth control, or protection against apoptosis (PubMed:9346484, PubMed:20434986, PubMed:20797629, PubMed:21138416). In addition to the NF-kappa-B inhibitors, phosphorylates several other components of the signaling pathway including NEMO/IKBKG, NF-kappa-B subunits RELA and NFKB1, as well as IKK-related kinases TBK1 and IKBKE (PubMed:11297557, PubMed:14673179, PubMed:20410276, PubMed:21138416). IKK-related kinase phosphorylations may prevent the overproduction of inflammatory mediators since they exert a negative regulation on canonical IKKs (PubMed:11297557, PubMed:20410276, PubMed:21138416). Phosphorylates FOXO3, mediating the TNF-dependent inactivation of this pro-apoptotic transcription factor (PubMed:15084260). Also phosphorylates other substrates including NAA10, NCOA3, BCL10 and IRS1 (PubMed:19716809, PubMed:17213322). Phosphorylates RIPK1 at 'Ser-25' which represses its kinase activity and consequently prevents TNF-mediated RIPK1-dependent cell death (By similarity). Phosphorylates the C-terminus of IRF5, stimulating IRF5 homodimerization and translocation into the nucleus (PubMed:25326418). {ECO:0000250|UniProtKB:O88351, ECO:0000269|PubMed:11297557, ECO:0000269|PubMed:14673179, ECO:0000269|PubMed:15084260, ECO:0000269|PubMed:17213322, ECO:0000269|PubMed:19716809, ECO:0000269|PubMed:20410276, ECO:0000269|PubMed:20434986, ECO:0000269|PubMed:20797629, ECO:0000269|PubMed:21138416, ECO:0000269|PubMed:25326418, ECO:0000269|PubMed:30337470, ECO:0000269|PubMed:9346484}.
Molecular Weight:	86.6 kDa
UniProt:	O14920
Pathways:	NF-kappaB Signaling, RTK Signaling, TCR Signaling, TLR Signaling, Fc-epsilon Receptor Signaling Pathway, Neurotrophin Signaling Pathway, Activation of Innate immune Response, Production of Molecular Mediator of Immune Response, Hepatitis C, Toll-Like Receptors Cascades, BCR Signaling, Ubiquitin Proteasome Pathway, S100 Proteins

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies

Application Details

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