Datasheet for ABIN7554715

NFKB1 Protein (AA 1-968) (His tag)

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Overview

Quantity:	1 mg
Target:	NFKB1
Protein Characteristics:	AA 1-968
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This NFKB1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat NFKB1 Protein expressed in mammalien cells.
Sequence:	MAEDDPYLGR PEQMFHLDPS LTHTIFNPEV FQPQMALPTD GPYLQILEQP KQRGFRFRYV CEGPSHGGLP GASSEKNKKS YPQVKICNYV GPAKVIVQLV TNGKNIHLHA HSLVGKHCED GICTVTAGPK DMVVGFANLG ILHVTKKKVF ETLEARMTEA CIRGYNPGLL VHPDLAYLQA EGGGDRQLGD REKELIRQAA LQQTKEMDLS VVRLMFTAFL PDSTGSFTRR LEPVVSDAIY DSKAPNASNL KIVRMDRTAG CVTGGEEIYL LCDKVQKDDI QIRFYEEEEN GGVWEGFGDF SPTDVHRQFA IVFKTPKYKD INITKPASVF VQLRRKSDLE TSEPKPFLYY PEIKDKEEVQ RKRQKLMPNF SDSFGGGSGA GAGGGGMFGS GGGGGGTGST GPGYSFPHYG FPTYGGITFH PGTTKSNAGM KHGTMDTESK KDPEGCDKSD DKNTVNLFGK VIETTEQDQE PSEATVGNGE VTLTYATGTK EESAGVQDNL FLEKAMQLAK RHANALFDYA VTGDVKMLLA VQRHLTAVQD ENGDSVLHLA IIHLHSQLVR DLLEVTSGLI SDDIINMRND LYQTPLHLAV ITKQEDVVED LLRAGADLSL LDRLGNSVLH LAAKEGHDKV LSILLKHKKA ALLLDHPNGD GLNAIHLAMM

Product Details

	SNSLPCLLLL VAAGADVNAQ EQKSGRTALH LAVEHDNISL AGCLLLEGDA HVDSTTYDGT TPLHIAAGRG STRLAALLKA AGADPLVENF EPLYDLDDSW ENAGEDEGVV PGTTPLDMAT SWQVFDILNG KPYEPEFTSD DLLAQGDMKQ LAEDVKLQLY KLLEIPDPDK NWATLAQKLG LGILNNAFRL SPAPSKTLMD NYEVSGGTVR ELVEALRQMG YTEAIEVIQA ASSPVKTTSQ AHSLPLSPAS TRQQIDELRD SDSVCDSGVE TSFRKLSFTE SLTSGASLLT LNKMPHDYGQ EGPLEGKI **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:	NFKB1
Alternative Name:	NFKB1 (NFKB1 Products)
Background:	Nuclear factor NF-kappa-B p105 subunit (DNA-binding factor KBF1) (EBP-1) (Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1) [Cleaved into: Nuclear factor NF-kappa-B p50 subunit],FUNCTION: NF-kappa-B is a pleiotropic transcription factor present in almost all cell types and is the endpoint of a series of signal transduction events that are initiated by a vast array of stimuli related to many biological processes such as inflammation, immunity,

differentiation, cell growth, tumorigenesis and apoptosis. NF-kappa-B is a homo- or heterodimeric complex formed by the Rel-like domain-containing proteins RELA/p65, RELB, NFKB1/p105, NFKB1/p50, REL and NFKB2/p52 and the heterodimeric p65-p50 complex appears to be most abundant one. The dimers bind at kappa-B sites in the DNA of their target genes and the individual dimers have distinct preferences for different kappa-B sites that they can bind with distinguishable affinity and specificity. Different dimer combinations act as transcriptional activators or repressors, respectively. NF-kappa-B is controlled by various mechanisms of post-translational modification and subcellular compartmentalization as well as by interactions with other cofactors or corepressors. NF-kappa-B complexes are held in the cytoplasm in an inactive state complexed with members of the NF-kappa-B inhibitor (I-kappa-B) family. In a conventional activation pathway, I-kappa-B is phosphorylated by I-kappa-B kinases (IKKs) in response to different activators, subsequently degraded thus liberating the active NF-kappa-B complex which translocates to the nucleus. NF-kappa-B heterodimeric p65-p50 and RelB-p50 complexes are transcriptional activators. The NF-kappa-B p50-p50 homodimer is a transcriptional repressor, but can act as a transcriptional activator when associated with BCL3. NFKB1 appears to have dual functions such as cytoplasmic retention of attached NF-kappa-B proteins by p105 and generation of p50 by a cotranslational processing. The proteasome-mediated process ensures the production of both p50 and p105 and preserves their independent function, although processing of NFKB1/p105 also appears to occur post-translationally. p50 binds to the kappa-B consensus sequence 5'-GGRNNYYCC-3', located in the enhancer region of genes involved in immune response and acute phase reactions. In a complex with MAP3K8, NFKB1/p105 represses MAP3K8-induced MAPK signaling, active MAP3K8 is released by proteasome-dependent degradation of NFKB1/p105. {ECO:0000269|PubMed:15485931, ECO:0000269|PubMed:1740106, ECO:0000269|PubMed:2203531, ECO:0000269|PubMed:2234062, ECO:0000269|PubMed:7830764}., FUNCTION: [Nuclear factor NF-kappa-B p105 subunit]: P105 is the precursor of the active p50 subunit (Nuclear factor NF-kappa-B p50 subunit) of the nuclear factor NF-kappa-B (PubMed:1423592). Acts as a cytoplasmic retention of attached NF-kappa-B proteins by p105 (PubMed:1423592). {ECO:0000269|PubMed:1423592}., FUNCTION: [Nuclear factor NF-kappa-B p50 subunit]: Constitutes the active form, which associates with RELA/p65 to form the NF-kappa-B p65-p50 complex to form a transcription factor (PubMed:1740106, PubMed:7830764). Together with RELA/p65, binds to the kappa-B consensus sequence 5'-GGRNNYYCC-3', located in the enhancer region of genes involved in immune response and acute phase reactions (PubMed:1740106, PubMed:7830764). {ECO:0000269|PubMed:1740106, ECO:0000269|PubMed:7830764}.

Target Details

Molecular Weight:	105.4 kDa
UniProt:	P19838
Pathways:	p53 Signaling, NF-kappaB Signaling, RTK Signaling, TCR Signaling, TLR Signaling, Fc-epsilon Receptor Signaling Pathway, Neurotrophin Signaling Pathway, Activation of Innate immune Response, Myometrial Relaxation and Contraction, Regulation of Carbohydrate Metabolic Process, Hepatitis C, Toll-Like Receptors Cascades, BCR Signaling, S100 Proteins

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

