

# Datasheet for ABIN7565202 NFKB2 Protein (AA 1-899) (His tag)



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Quantity:	1 mg
Target:	NFKB2
Protein Characteristics:	AA 1-899
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This NFKB2 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Purpose:	Custom-made recombinat Nfkb2 Protein expressed in mammalien cells.
Sequence:	MDNCYDPGLD GIPEYDDFEF SPSIVEPKDP APETADGPYL VIVEQPKQRG FRFRYGCEGP
	SHGGLPGASS EKGRKTYPTV KICNYEGPAK IEVDLVTHSD PPRAHAHSLV GKQCSELGVC
	AVSVGPKDMT AQFNNLGVLH VTKKNMMEIM IQKLQRQRLR SKPQGLTEAE RRELEQEAKE
	LKKVMDLSIV RLRFSAFLRA SDGSFSLPLK PVISQPIHDS KSPGASNLKI SRMDKTAGSV
	RGGDEVYLLC DKVQKDDIEV RFYEDDENGW QAFGDFSPTD VHKQYAIVFR TPPYHKMKIE
	RPVTVFLQLK RKRGGDVSDS KQFTYYPLVE DKEEVQRKRR KALPTFSQPF GGGSHMGGGS
	GGSAGGYGGA GGGGSLGFFS SSLAYNPYQS GAAPMGCYPG GGGGAQMAGS RRDTDAGEGA
	EEPRTPPEAP QGEPQALDTL QRAREYNARL FGLAQRSARA LLDYGVTADA RALLAGQRHL
	LMAQDENGDT PLHLAIIHGQ TGVIEQIAHV IYHAQYLGVI NLTNHLHQTP LHLAVITGQT
	RVVSFLLQVG ADPTLLDRHG DSALHLALRA GAAAPELLQA LLRSGAHAVP QILHMPDFEG
	LYPVHLAVHA RSPECLDLLV DCGAEVEAPE RQGGRTALHL ATEMEELGLV THLVTKLHAN

VNARTFAGNT PLHLAAGLGS PTLTRLLLKA GADIHAENEE PLCPLPSPST SGSDSDSEGP
ERDTQRNFRG HTPLDLTCST KVKTLLLNAA QNTTEPPLAP PSPAGPGLSL GDAALQNLEQ
LLDGPEAQGS WAELAERLGL RSLVDTYRKT PSPSGSLLRS YKLAGGDLVG LLEALSDMGL
HEGVRLLKGP ETRDKLPSTE VKEDSAYGSQ SVEQEAEKLC PPPEPPGGLC HGHPQPQVH
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.

#### 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).

In case you have a special request, please contact us.

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:

Target:

custom-made

NFKB2

## **Target Details**

Alternative Name:	Nfkb2 (NFKB2 Products)
Background:	Nuclear factor NF-kappa-B p100 subunit (DNA-binding factor KBF2) (Nuclear factor of kappa
	light polypeptide gene enhancer in B-cells 2) [Cleaved into: Nuclear factor NF-kappa-B p52
	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. 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 NFkappa-B complex which translocates to the nucleus. In a non-canonical activation pathway, the MAP3K14-activated CHUK/IKKA homodimer phosphorylates NFKB2/p100 associated with RelB, inducing its proteolytic processing to NFKB2/p52 and the formation of NF-kappa-B RelBp52 complexes. The NF-kappa-B heterodimeric RelB-p52 complex is a transcriptional activator. The NF-kappa-B p52-p52 homodimer is a transcriptional repressor. NFKB2 appears to have dual functions such as cytoplasmic retention of attached NF-kappa-B proteins by p100 and generation of p52 by a cotranslational processing. The proteasome-mediated process ensures the production of both p52 and p100 and preserves their independent function. p52 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. p52 and p100 are respectively the minor and major form, the processing of p100 being relatively poor. Isoform p49 is a subunit of the NF-kappa-B protein complex, which stimulates the HIV enhancer in synergy with p65 (By similarity). In concert with RELB, regulates the circadian clock by repressing the transcriptional activator activity of the CLOCK-BMAL1 heterodimer. {ECO:0000250|UniProtKB:Q00653, ECO:0000269|PubMed:22894897}.

Molecular Weight:

96.8 kDa

UniProt:

Q9WTK5

Pathways:

Toll-Like Receptors Cascades

### 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