Datasheet for ABIN3094116

NFKB2 Protein (AA 1-900) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	NFKB2
Protein Characteristics:	AA 1-900
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This NFKB2 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MESCYNPGLD GIIEYDDFKL NSSIVEPKEP APETADGPYL VIVEQPKQRG FRFRYGCEGP SHGGLPGASS EKGRKTYPTV KICNYEGPAK IEVDLVTHSD PPRAHAHSLV GKQCSELGIC AVSVGPKDMT AQFNNLGVLH VTKKNMMGTM IQKLQRQRLR SRPQGLTEAE QRELEQEAKE LKKVMDLSIV RLRFSAFLRA SDGSFSLPLK PVISQPIHDS KSPGASNLKI SRMDKTAGSV RGGDEVYLLC DKVQKDDIEV RFYEDDENGW QAFGDFSPTD VHKQYAIVFR TPPYHKMKIE RPVTVFLQLK RKRGGDVSDS KQFTYYPLVE DKEEVQRKRR KALPTFSQPF GGGSHMGGGS GGAAGGYGGA GGGGSLGFFP SSLAYSPYQS GAGPMGCYPG GGGGAQMAAT VPSRDSGEEA AEPSAPSRTP QCEPQAPEML QRAREYNARL FGLAQRSARA LLDYGVTADA RALLAGQRHL LTAQDENGDT PLHLAIIHGQ TSVIEQIVYV IHHAQDLGVV NLTNHLHQTP LHLAVITGQT SVVSFLLRVG ADPALLDRHG DSAMHLALRA GAGAPELLRA LLQSGAPAVP QLLHMPDFEG LYPVHLAVRA RSPECLDLLV DSGAEVEATE RQGGRTALHL ATEMEELGLV THLVTKLRAN

VNARTFAGNT PLHLAAGLGY PTLTRLLLKA GADIHAENEE PLCPLPSPPT SDSDSDSEGP EKDTRSSFRG HTPLDLTCST KVKTLLLNAA QNTMEPPLTP PSPAGPGLSL GDTALQNLEQ LLDGPEAQGS WAELAERLGL RSLVDTYRQT TSPSGSLLRS YELAGGDLAG LLEALSDMGL EEGVRLLRGP ETRDKLPSTA EVKEDSAYGS QSVEQEAEKL GPPPEPPGGL CHGHPQPQVH

Sequence without tag. The proposed Strep-Tag is based on experience s 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 in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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.

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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Product Details

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	NFKB2
Alternative Name:	NFKB2 (NFKB2 Products)
Background:	Nuclear factor NF-kappa-B p100 subunit (DNA-binding factor KBF2) (H2TF1) (Lymphocyte translocation chromosome 10 protein) (Nuclear factor of kappa light polypeptide gene enhancer in B-cells 2) (Oncogene Lyt-10) (Lyt10) [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 NF-kappa-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 RelB-p52 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

Target Details

	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. In concert with RELB, regulates the circadian clock by repressing the transcriptional activator activity of the CLOCK-BMAL1 heterodimer. {ECO:0000269|PubMed:7925301}.
Molecular Weight:	96.7 kDa
UniProt:	Q00653
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.
Comment:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.

Handling

Expiry Date:	12 months