Datasheet for ABIN3093125

IKKi/IKKe Protein (AA 1-716) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	IKKi/IKKe (IKBKE)
Protein Characteristics:	AA 1-716
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This IKKi/IKKe protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MQSTANYLWH TDDLLGQGAT ASVYKARNKK SGELVAVKVF NTTSYLRPRE VQVREFEVLR KLNHQNIVKL FAVEETGGSR QKVLVMEYCS SGSLLSVLES PENAFGLPED EFLVVLRCVV AGMNHLRENG IVHRDIKPGN IMRLVGEEGQ SIYKLTDFGA ARELDDDEKF VSVYGTEEYL HPDMYERAVL RKPQQKAFGV TVDLWSIGVT LYHAATGSLP FIPFGGPRRN KEIMYRITTE KPAGAIAGAQ RRENGPLEWS YTLPITCQLS LGLQSQLVPI LANILEVEQA KCWGFDQFFA ETSDILQRVV VHVFSLSQAV LHHIYIHAHN TIAIFQEAVH KQTSVAPRHQ EYLFEGHLCV LEPSVSAQHI AHTTASSPLT LFSTAIPKGL AFRDPALDVP KFVPKVDLQA DYNTAKGVLG AGYQALRLAR ALLDGQELMF RGLHWVMEVL QATCRRTLEV ARTSLLYLSS SLGTERFSSV AGTPEIQELK AAAELRSRLR TLAEVLSRCS QNITETQESL SSLNRELVKS RDQVHEDRSI QQIQCCLDKM NFIYKQFKKS RMRPGLGYNE EQIHKLDKVN FSHLAKRLLQ VFQEECVQKY QASLVTHGKR MRVVHETRNH LRLVGCSVAA CNTEAQGVQE SLSKLLEELS HQLLQDRAKG AQASPPPIAP YPSPTRKDLL LHMQELCEGM KLLASDLLDN NRIIERLNRV PAPPDV

	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 by multi-step, protein-specific process to ensure correct folding and modification. • 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 will ensure that you receive a correctly folded 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 in several dilutions and is measured against its specific reference buffer. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

Product Details

	1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

Target Details

Target:	IKKi/IKKe (IKBKE)
Alternative Name:	IKBKE (IKBKE Products)
Background:	Inhibitor of nuclear factor kappa-B kinase subunit epsilon (I-kappa-B kinase epsilon) (IKK-E) (IKK-epsilon) (IkBKE) (EC 2.7.11.10) (Inducible I kappa-B kinase) (IKK-i),FUNCTION: Serine/threonine kinase that plays an essential role in regulating inflammatory responses to viral infection, through the activation of the type I IFN, NF-kappa-B and STAT signaling. Also involved in TNFA and inflammatory cytokines, like Interleukin-1, signaling. Following activation of viral RNA sensors, such as RIG-I-like receptors, associates with DDX3X and phosphorylates interferon regulatory factors (IRFs), IRF3 and IRF7, as well as DDX3X. This activity allows subsequent homodimerization and nuclear translocation of the IRF3 leading to transcriptional activation of pro-inflammatory and antiviral genes including IFNB. In order to establish such an antiviral state, IKBKE forms several different complexes whose composition depends on the type of cell and cellular stimuli. Thus, several scaffolding molecules including IPS1/MAVS, TANK, AZI2/NAP1 or TBKBP1/SINTBAD can be recruited to the IKBKE-containing-complexes. Activated by polyubiquitination in response to TNFA and interleukin-1, regulates the NF-kappa-B signaling pathway through, at least, the phosphorylation of CYLD. Phosphorylates inhibitors of NF-kappa-B thus leading to the dissociation of the inhibitor/NF-kappa-B complex and ultimately the degradation of the inhibitor. In addition, is also required for the induction of a subset of ISGs which displays antiviral activity, may be through the phosphorylation of STAT1 at 'Ser-708'. Phosphorylation of STAT1 at 'Ser-708' seems also to promote the assembly and DNA binding of ISGF3 (STAT1:STAT2:IRF9) complexes compared to GAF (STAT1:STAT1) complexes, in this way regulating the balance between type I and type II IFN responses. Protects cells against DNA damage-induced cell death. Also plays an important 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. Phosphorylates AKT1. {ECO:0000269|PubMed:17568778,

Target Details

	ECO:0000269|PubMed:18583960, ECO:0000269|PubMed:19153231, ECO:0000269|PubMed:20188669, ECO:0000269|PubMed:21138416, ECO:0000269|PubMed:21464307, ECO:0000269|PubMed:22532683, ECO:0000269|PubMed:23453969, ECO:0000269|PubMed:23478265}.
Molecular Weight:	80.5 kDa
UniProt:	Q14164
Pathways:	TLR Signaling, Activation of Innate immune Response, Hepatitis C, 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. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.

Handling

Expiry Date:	Unlimited (if stored properly)