Datasheet for ABIN3087952

AAK1 Protein (AA 1-961) (Strep Tag)

1 Image

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Overview

Quantity:	1 mg
Target:	AAK1
Protein Characteristics:	AA 1-961
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This AAK1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MKKFFDSRRE QGGSGLGSGS SGGGGSTSGL GSGYIGRVFG IGRQQVTVDE VLAEGGFAIV FLVRTSNGMK CALKRMFVNN EHDLQVCKRE IQIMRDLSGH KNIVGYIDSS INNVSSGDVW EVLILMDFCR GGQVVNLMNQ RLQTGFTENE VLQIFCDTCE AVARLHQCKT PIIHRDLKVE NILLHDRGHY VLCDFGSATN KFQNPQTEGV NAVEDEIKKY TTLSYRAPEM VNLYSGKIIT TKADIWALGC LLYKLCYFTL PFGESQVAIC DGNFTIPDNS RYSQDMHCLI RYMLEPDPDK RPDIYQVSYF SFKLLKKECP IPNVQNSPIP AKLPEPVKAS EAAAKKTQPK ARLTDPIPTT ETSIAPRQRP KAGQTQPNPG ILPIQPALTP RKRATVQPPP QAAGSSNQPG LLASVPQPKP QAPPSQPLPQ TQAKQPQAPP TPQQTPSTQA QGLPAQAQAT PQHQQQLFLK QQQQQQQPPP AQQQPAGTFY QQQQAQTQQF QAVHPATQKP AIAQFPVVSQ GGSQQQLMQN FYQQQQQQQQ QQQQQQLATA LHQQQLMTQQ AALQQKPTMA AGQQPQPQPA AAPQPAPAQE PAIQAPVRQQ PKVQTTPPPA VQGQKVGSLT PPSSPKTQRA GHRRILSDVT HSAVFGVPAS KSTQLLQAAA AEASLNKSKS ATTTPSGSPR TSQQNVYNPS EGSTWNPFDD DNFSKLTAEE LLNKDFAKLG

EGKHPEKLGG SAESLIPGFQ STQGDAFATT SFSAGTAEKR KGGQTVDSGL PLLSVSDPFI PLQVPDAPEK LIEGLKSPDT SLLLPDLLPM TDPFGSTSDA VIEKADVAVE SLIPGLEPPV PQRLPSQTES VTSNRTDSLT GEDSLLDCSL LSNPTTDLLE EFAPTAISAP VHKAAEDSNL ISGFDVPEGS DKVAEDEFDP IPVLITKNPQ GGHSRNSSGS SESSLPNLAR SLLLVDQLID L

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.

Product Details

	• 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®): 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)
Grade:	Crystallography grade

Target Details

Target:	AAK1
Alternative Name:	AAK1 (AAK1 Products)
Background:	AP2-associated protein kinase 1 (EC 2.7.11.1) (Adaptor-associated kinase 1),FUNCTION: Regulates clathrin-mediated endocytosis by phosphorylating the AP2M1/mu2 subunit of the adaptor protein complex 2 (AP-2) which ensures high affinity binding of AP-2 to cargo membrane proteins during the initial stages of endocytosis (PubMed:17494869, PubMed:11877457, PubMed:11877461, PubMed:12952931, PubMed:14617351, PubMed:25653444). Isoform 1 and isoform 2 display similar levels of kinase activity towards AP2M1 (PubMed:17494869). Preferentially, may phosphorylate substrates on threonine residues (PubMed:11877457, PubMed:18657069). Regulates phosphorylation of other AP-2 subunits as well as AP-2 localization and AP-2-mediated internalization of ligand complexes (PubMed:12952931). Phosphorylates NUMB and regulates its cellular localization, promoting NUMB localization to endosomes (PubMed:18657069). Binds to and stabilizes the activated form of NOTCH1, increases its localization in endosomes and regulates its transcriptional activity (PubMed:21464124). {ECO:0000269|PubMed:11877457, ECO:0000269|PubMed:11877461, ECO:0000269|PubMed:12952931, ECO:0000269|PubMed:14617351, ECO:0000269|PubMed:17494869, ECO:0000269|PubMed:18657069, ECO:0000269|PubMed:21464124, ECO:0000269|PubMed:25653444}., FUNCTION: (Microbial infection) By regulating clathrin-

Target Details

	mediated endocytosis, AAK1 plays a role in the entry of hepatitis C virus as well as for the lifecycle of other viruses such as Ebola and Dengue. {ECO:0000269|PubMed:25653444, ECO:0000305|PubMed:31136173}.
Molecular Weight:	103.9 kDa
UniProt:	Q2M2I8

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.
Expiry Date:	Unlimited (if stored properly)

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process