Datasheet for ABIN3090446

BRSK1 Protein (AA 1-778) (His tag)

1 Image

Go to Product page

Overview

Quantity:	1 mg
Target:	BRSK1
Protein Characteristics:	AA 1-778
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This BRSK1 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS), Crystallization (Crys)

Product Details

Sequence:	MSSGAKEGGG GSPAYHLPHP HPHPPQHAQY VGPYRLEKTL GKGQTGLVKL GVHCITGQKV AIKIVNREKL SESVLMKVER EIAILKLIEH PHVLKLHDVY ENKKYLYLVL EHVSGGELFD YLVKKGRLTP KEARKFFRQI VSALDFCHSY SICHRDLKPE NLLLDEKNNI RIADFGMASL QVGDSLLETS CGSPHYACPE VIKGEKYDGR RADMWSCGVI LFALLVGALP FDDDNLRQLL EKVKRGVFHM PHFIPPDCQS LLRGMIEVEP EKRLSLEQIQ KHPWYLGGKH EPDPCLEPAP GRRVAMRSLP SNGELDPDVL ESMASLGCFR DRERLHRELR SEEENQEKMI YYLLLDRKER YPSCEDQDLP PRNDVDPPRK RVDSPMLSRH GKRRPERKSM EVLSITDAGG GGSPVPTRRA LEMAQHSQRS RSVSGASTGL SSSPLSSPRS PVFSFSPEPG AGDEARGGGS PTSKTQTLPS RGPRGGGAGE QPPPPSARST PLPGPPGSPR SSGGTPLHSP LHTPRASPTG TPGTTPPPSP GGGVGGAAWR SRLNSIRNSF LGSPRFHRRK MQVPTAEEMS SLTPESSPEL AKRSWFGNFI SLDKEEQIFL VLKDKPLSSI KADIVHAFLS IPSLSHSVLS QTSFRAEYKA SGGPSVFQKP VRFQVDISSS EGPEPSPRRD GSGGGGIYSV TFTLISGPSR RFKRVVETIQ AQLLSTHDQP

Product Details

	SVQALADEKN GAQTRPAGAP PRSLQPPPGR PDPELSSSPR RGPPKDKKLL ATNGTPLP **Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Human BRSK1 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade. • 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. In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization). When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered. 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. The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. 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:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.

Product Details

Grade:	Crystallography grade

Target Details

Target:	BRSK1
Alternative Name:	BRSK1 (BRSK1 Products)
Background:	Serine/threonine-protein kinase that plays a key role in polarization of neurons and centrosome duplication. Phosphorylates CDC25B, CDC25C, MAPT/TAU, RIMS1, TUBG1, TUBG2 and WEE1. Following phosphorylation and activation by STK11/LKB1, acts as a key regulator of polarization of cortical neurons, probably by mediating phosphorylation of microtubule-associated proteins such as MAPT/TAU at 'Thr-529' and 'Ser-579'. Also regulates neuron polarization by mediating phosphorylation of WEE1 at 'Ser-642' in post-mitotic neurons, leading to down-regulate WEE1 activity in polarized neurons. In neurons, localizes to synaptic vesicles and plays a role in neurotransmitter release, possibly by phosphorylating RIMS1. Also acts as a positive regulator of centrosome duplication by mediating phosphorylation of gamma-tubulin (TUBG1 and TUBG2) at 'Ser-131', leading to translocation of gamma-tubulin and its associated proteins to the centrosome. Involved in the UV-induced DNA damage checkpoint response, probably by inhibiting CDK1 activity through phosphorylation and activation of WEE1, and inhibition of CDC25B and CDC25C. {ECO:0000269|PubMed:14976552, ECO:0000269|PubMed:15150265, ECO:0000269|PubMed:20026642, ECO:0000269|PubMed:21985311}.
Molecular Weight:	86.0 kDa Including tag.
UniProt:	Q8TDC3

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 gurantee though.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value 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:	Unlimited (if stored properly)

Images

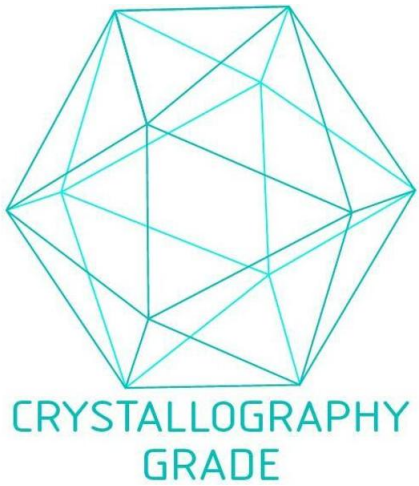

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process