

Datasheet for ABIN3090446

BRSK1 Protein (AA 1-778) (Strep Tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	BRSK1
Protein Characteristics:	AA 1-778
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This BRSK1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MSSGAKEGGG GSPAYHLPHP HPHPPQHAQY VGPYRLEKTL GKGQTGLVKL GVHCITGQKV AIKIVNREKL SESVLMKVER EIAILKIEH PHVLKLHDVY ENKKYLYLVL EHVSGGELFD YLVKKGRLTP KEARKFFRQI VSALDFCHSY SICHRDLKPE NLLLDEKNNI RIADFGMASL QVGDSLLETS CGSPHYACPE VIKGEKYDGR RADMWSCGVI LFALLVGALP FDDDNLRQLL EKVKRGVFHM PHFIPDCQS LLRGMIEVEP EKRLSLEIQ KHPWYLGGKH EPDPCLEPAP GRRVAMRSLP SNGELDPDVL ESMASLGCFR DRERLHREL RSEEENQEKMI YYLLLDKER YPSCEDQDLP PRNDVDPPRK RVDSPMLSRH GKRRPERKSM EVLSITDAGG GGSPVPTRRA LEMAQHSQRS RSVSGASTGL SSSPLSSPRS PVFSFSPEPG AGDEARGGGS PTSKTQTLPS RGPRGGGAGE QPPPPSARST PLPGPPGSPR SSGGTPLHSP LHTPRASPTG TPGTTPPPSP GGGVGGAAWR SRLNSIRNSF LGSPRFHRRK MQVPTAEEMS SLTPESSEPEL AKRSWFGNFI SLDKEEQIFL VLKDKPLSSI KADIVHAFLS IPSLSHSVLS QTSFRAEYKA SGGPSVFQKP VRFQVDISSS EGPEPSPRRD GSGGGGIYSV TFTLISGPSR RFKRVVETIQ AQLLSTHDQP
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SVQALADEKN GAQTRPAGAP PRSLQPPPGR PDPELSSSPR RGPPKDKKLL ATNGTPLP

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

Product Details

(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:	BRSK1
Alternative Name:	BRSK1 (BRSK1 Products)
Background:	<p>Serine/threonine-protein kinase BRSK1 (EC 2.7.11.1) (Brain-selective kinase 1) (EC 2.7.11.26) (Brain-specific serine/threonine-protein kinase 1) (BR serine/threonine-protein kinase 1) (Serine/threonine-protein kinase SAD-B) (Synapses of Amphids Defective homolog 1) (SAD1 homolog) (hSAD1),FUNCTION: 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 postmitotic 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.</p> <p>{ECO:0000269 PubMed:14976552, ECO:0000269 PubMed:15150265, ECO:0000269 PubMed:20026642, ECO:0000269 PubMed:21985311}.</p>
Molecular Weight:	85.1 kDa
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 guarantee though.
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Comment:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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.</p> <p>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!</p>
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Restrictions:	For Research Use only
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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