Datasheet for ABIN3090447

BRSK2 Protein (AA 1-736) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	BRSK2
Protein Characteristics:	AA 1-736
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This BRSK2 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MTSTGKDGGA QHAQYVGPYR LEKTLGKGQT GLVKLGVHCV TCQKVAIKIV NREKLSESVL MKVEREIAIL KLIEHPHVLK LHDVYENKKY LYLVLEHVSG GELFDYLVKK GRLTPKEARK FFRQIISALD FCHSHSICHR DLKPENLLLD EKNNIRIADF GMASLQVGDS LLETSCGSPH YACPEVIRGE KYDGRKADVW SCGVILFALL VGALPFDDDN LRQLLEKVKR GVFHMPHFIP PDCQSLLRGM IEVDAARRLT LEHIQKHIWY IGGKNEPEPE QPIPRKVQIR SLPSLEDIDP DVLDSMHSLG CFRDRNKLLQ DLLSEEENQE KMIYFLLLDR KERYPSQEDE DLPPRNEIDP PRKRVDSPML NRHGKRRPER KSMEVLSVTD GGSPVPARRA IEMAQHGQRS RSISGASSGL STSPLSSPRV TPHPSPRGSP LPTPKGTPVH TPKESPAGTP NPTPPSSPSV GGVPWRARLN SIKNSFLGSP RFHRRKLQVP TPEEMSNLTP ESSPELAKKS WFGNFISLEK EEQIFVVIKD KPLSSIKADI VHAFLSIPSL SHSVISQTSF RAEYKATGGP AVFQKPVKFQ VDITYTEGGE AQKENGIYSV TFTLLSGPSR RFKRVVETIQ AQLLSTHDPP AAQHLSDTTN CMEMMTGRLS

KCGSPLSNFF DVIKQLFSDE KNGQAAQAPS TPAKRSAHGP LGDSAAAGPG PGGDAEYPTG KDTAKMGPPT ARREQP

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.

Purification:

One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).

Product Details

Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	BRSK2
Alternative Name:	BRSK2 (BRSK2 Products)
Background:	Serine/threonine-protein kinase BRSK2 (EC 2.7.11.1) (Brain-selective kinase 2) (EC 2.7.11.26) (Brain-specific serine/threonine-protein kinase 2) (BR serine/threonine-protein kinase 2) (Serine/threonine-protein kinase 29) (Serine/threonine-protein kinase SAD-A),FUNCTION: Serine/threonine-protein kinase that plays a key role in polarization of neurons and axonogenesis, cell cycle progress and insulin secretion. Phosphorylates CDK16, CDC25C, MAPT/TAU, PAK1 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. Plays a role in the regulation of the mitotic cell cycle progress and the onset of mitosis. Plays a role in the regulation of insulin secretion in response to elevated glucose levels, probably via phosphorylation of CDK16 and PAK1. While BRSK2 phosphorylated at Thr-174 can inhibit insulin secretion (PubMed:22798068), BRSK2 phosphorylated at Thr-260 can promote insulin secretion (PubMed:22669945). Regulates reorganization of the actin cytoskeleton. May play a role in the apoptotic response triggered by endoplasmic reticulum (ER) stress. {ECO:0000269|PubMed:14976552, ECO:0000269|PubMed:20026642, ECO:0000269|PubMed:21985311, ECO:0000269|PubMed:22669945, ECO:0000269|PubMed:22798068, ECO:0000269|PubMed:23029325}.
Molecular Weight:	81.6 kDa
UniProt:	Q8IWQ3

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

Application Details

	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.
Expiry Date:	12 months