

Datasheet for ABIN3077392

SLIT-ROBO rho GTPase Activating Protein 2C (SRGAP2C) (AA 1-459) protein (Strep Tag)



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1 Image

Overview

Quantity:	1 mg
Target:	SLIT-ROBO rho GTPase Activating Protein 2C (SRGAP2C)
Protein Characteristics:	AA 1-459
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	Strep Tag
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence: MTSPAKFKKD KEIIAEYDTQ VKEIRAQLTE QMKCLDQQCE LRVQLLQDLQ DFFRKKAEIE
MDYSRNLEKL AEHFLAKTRS TKDQQFKKDQ NVLSPVNCWN LLLNQVKWES RDHTTLSDIY
LNNIIPRFVQ VSEDSGRLFK KSKEVGQQLQ DDLMKVLNEL YSVMKTYHMY NADSISAQSK
LKEAEKQEEK QIGKSVKQED RQTPCSPDST ANVRIEEKHV RRSSVKKIEK MKEKHQAKYT
ENKCLKAIKAQ NEYLLALEAT NASVFKYYIH DLSDLIDQCC DLGYHASLNR ALRTFLSAEL
NLEQSKHEGL DAIENAVENL DATSDKQRLM EMYNNVFCPP MKFEFQPHMG DMASQLCAQQ
PVQSELVQRC QQLQSRLSTL KIENEEVKKT MEATLQTIQD IVTVEDFDVS DCFQYSNSME
SVKSTVSETF MSKPSIAKRR ANQQETEYFY FTVRECYGF

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®):

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.

Product Details

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:	SLIT-ROBO rho GTPase Activating Protein 2C (SRGAP2C)
Alternative Name:	SRGAP2C (SRGAP2C Products)
Background:	<p>SLIT-ROBO Rho GTPase-activating protein 2C (SLIT-ROBO Rho GTPase activating protein 2 pseudogene 1),FUNCTION: Human-specific protein that acts as a key modifier of cortical connectivity in the human brain (PubMed:22559944, PubMed:27373832, PubMed:34707291). Acts by inhibiting the functions of ancestral paralog SRGAP2/SRGAP2A, a postsynaptic protein that regulates excitatory and inhibitory synapse maturation and density in cortical pyramidal neurons (PubMed:22559944, PubMed:27373832). SRGAP2C is unstable but is able to heterodimerize with SRGAP2/SRGAP2A, thereby reducing SRGAP2/SRGAP2A levels through proteasome-dependent degradation (PubMed:27373832, PubMed:28333212, PubMed:31822692). Inhibition of SRGAP2/SRGAP2A by SRGAP2C leads to an increase in synaptic density and protracted synaptic maturation of both excitatory and inhibitory synapses (PubMed:27373832, PubMed:34707291). Modifies cortical circuit connectivity by increasing the number of local and long-range cortical inputs received by layer 2/3 pyramidal neurons (PubMed:34707291). Also able to increase the probability of sensory-evoked responses by layer 2/3 pyramidal neurons (PubMed:34707291). {ECO:0000269 PubMed:22559944, ECO:0000269 PubMed:27373832, ECO:0000269 PubMed:28333212, ECO:0000269 PubMed:31822692, ECO:0000269 PubMed:34707291}.</p>
Molecular Weight:	53.5 kDa
UniProt:	P0DJJO

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 <i>Nicotiana tabacum</i> c.v.. This contains all the protein expression machinery needed to produce

Application Details

even the most difficult-to-express proteins, including those that require post-translational modifications.

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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)

Images



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