Datasheet for ABIN3077392

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

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## Overview

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| Quantity: | 250 µg |
| Target: | SLIT-ROBO rho GTPase Activating Protein 2C (SRGAP2C) |
| Protein Characteristics: | AA 1-459 |
| Origin: | Human |
| Source: | Cell-free protein synthesis (CFPS) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | Strep Tag |
| Application: | ELISA, SDS-PAGE (SDS), Western Blotting (WB) |

## Product Details

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| Brand: | AliCE® |
| 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 ENKLKAIKAQ NEYLLALEAT NASVFKYYIH DLSDLIDQCC DLGYHASLNR ALRTFLSAEL NLEQSKHEGL DAIENAVENL DATSDKQRLM EMYNNVFCPP MKFEFQPHMG DMASQLCAQQ PVQSELVQRC QQLQSRLSTL KIENEEVKKT MEATLQTIQD IVTVEDFDVS DCFQYSNSME SVKSTVSETF MSKPSIAKRR ANQQETEQFY FTVRECYGF<br>**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.** |

## Product Details

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| Characteristics: | Key Benefits:<br>• Made in Germany - from design to production - by highly experienced protein experts.<br>• Protein expressed with ALiCE® and purified in one-step affinity chromatography<br>• These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).<br>• State-of-the-art algorithm used for plasmid design (Gene synthesis).<br><br>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.<br>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.<br><br>Expression System:<br>• 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.<br>• 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!<br><br>Concentration:<br>• The concentration of our recombinant proteins is measured using the absorbance at 280nm.<br>• The protein's absorbance will be measured against its specific reference buffer.<br>• 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®). |
| Purity: | > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC). |
| Grade: | custom-made |

## Target Details

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| Target: | SLIT-ROBO rho GTPase Activating Protein 2C (SRGAP2C) |
| Alternative Name: | SRGAP2C (SRGAP2C Products) |
| Background: | 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}. |
| Molecular Weight: | 53.5 kDa |
| UniProt: | P0DJJ0 |

## Application Details

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| 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.<br>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 |

## Application Details

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| | 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

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| Format: | Liquid |
| Buffer: | The buffer composition is at the discretion of the manufacturer.<br>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 |