Datasheet for ABIN3131188

# SYNGAP1 Protein (AA 1-1340) (Strep Tag)

Go to Product page

## Overview

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| Quantity: | 1 mg |
| Target: | SYNGAP1 |
| Protein Characteristics: | AA 1-1340 |
| Origin: | Mouse |
| Source: | Tobacco (Nicotiana tabacum) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This SYNGAP1 protein is labelled with Strep Tag. |
| Application: | ELISA, Western Blotting (WB), SDS-PAGE (SDS) |

## Product Details

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| Sequence: | MSRSRASIHR GSIPAMSYAP FRDVRGPPMH RTQYVHSPYD RPGWNPRFCI ISGNQLLMLD EDEIHPLLIR DRRSESSRNK LLRRTVSVPV EGRPHGEHEY HLGRSRRKSV PGGKQYSMEA APAAPFRPSQ GFLSRRLKSS IKRTKSQPKL DRTSSFRQIL PRFRSADHDR ARLMQSFKES HSHESLLSPS SAAEALELNL DEDSIIKPVH SSILGQEFCF EVTTSSGTKC FACRSAAERD KWIENLQRAV KPNKDNSRRV DNVLKLWIIE ARELPPKKRY YCELCLDDML YARTTSKPRS ASGDTVFWGE HFEFNNLPAV RALRLHLYRD SDKKRKKDKA GYVGLVTVPV ATLAGRHFTE QWYPVTLPTG SGGSGGMGSG GGGGSGGGSG GKGKGGCPAV RLKARYQTMS ILPMELYKEF AEYVTNHYRM LCAVLEPALN VKGKEEVASA LVHILQSTGK AKDFLSDMAM SEVDRFMERE HLIFRENTLA TKAIEEYMRL IGQKYLKDAI GEFIRALYES EENCEVDPIK CTASSLAEHQ ANLRMCCELA LCKVVNSHCV FPRELKEVFA SWRLRCAERG REDIADRLIS ASLFLRFLCP AIMSPSLFGL MQEYPDEQTS RTLTLIAKVI QNLANFSKFT SKEDFLGFMN EFLELEWGSM QQFLYEISNL DTLTNSSSFE GYIDLGRELS TLHALLWEVL PQLSKEALLK LGPLPRLLND |

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ISTALRNPNI QRQPSRQSER TRSQPMVLRG PSAEMQGYMM RDLNSSIDLQ SFMARGLNSS MDMARLPSPT KEKPPPPPPG GGKDLFYVSR PPLARSSPAY CTSSSDITEP EQKMLSVNKS VSMLDLQGDG PGGRLNSSSV SNLAAVGDLL HSSQASLTAA LGLRPAPAGR LSQGSGSSIT AAGMRLSQMG VTTDGVPAQQ LRIPLSFQNP LFHMAADGPG PPAGHGGSSG HGPPSSHHHH HHHHHHRGGE PPGDTFAPFH GYSKSEDLSS GVPKPPAASI LHSHSYSDEF GPSGTDFTRR QLSLQDSLQH MLSPPQITIG PQRPAPSGPG GGSGGGSGGG QPPPLQRGKS QQLTVSAAQK PRPSSGNLLQ SPEPSYGPAR PRQQSLSKEG SIGGSGGSGG GGGGGLKPSI TKQHSQTPST LNPTMPASER TVAWVSNMPH LSADIESAHI EREEYKLKEY SKSMDESRLD RVKEYEEEIH SLKERLHMSN RKLEEYERRL LSQEEQTSKI LMQYQARLEQ SEKRLRQQQV EKDSQIKSII GRLMLVEEEL RRDHPAMAEP LPEPKKRLLD AQERQLPPLG PTNPRVTLAP PWNGLAPPAP PPPPRLQITE NGEFRNTADH

**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

## Product Details

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.

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| Purification: | Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):<br>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.<br>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) |

## Target Details

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| Target: | SYNGAP1 |
| Alternative Name: | Syngap1 (SYNGAP1 Products) |
| Background: | Ras/Rap GTPase-activating protein SynGAP (Neuronal RasGAP) (Synaptic Ras GTPase-activating protein 1) (Synaptic Ras-GAP 1),FUNCTION: Major constituent of the PSD essential for postsynaptic signaling. Inhibitory regulator of the Ras-cAMP pathway. Member of the NMDAR signaling complex in excitatory synapses, it may play a role in NMDAR-dependent control of AMPAR potentiation, AMPAR membrane trafficking and synaptic plasticity. Regulates AMPAR-mediated miniature excitatory postsynaptic currents. Exhibits dual GTPase-activating specificity for Ras and Rap. May be involved in certain forms of brain injury, leading to long-term learning and memory deficits (By similarity). {ECO:0000250}. |
| Molecular Weight: | 148.2 kDa |
| UniProt: | F6SEU4 |
| Pathways: | Regulation of long-term Neuronal Synaptic Plasticity |

## 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 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. 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) |

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