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Datasheet for ABIN3135835
PPP1R9B Protein (AA 1-817) (Strep Tag)

Overview

Quantity:	1 mg
Target:	PPP1R9B
Protein Characteristics:	AA 1-817
Origin:	Mouse
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PPP1R9B protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MMKTEPRGPG GPLRSASPHR SAYEAGIQAL KPPDAPGPDE APKAAHHKKY GSNVHRIKSM
FLQMGTTAGP PGEAGGGAGM AEAPRASDRG VRLSLPRASS LNENVDHSA LKLGTSVSR
VSRFDSKPAP SAQPAPPPHP PSRLQETRKL FERSVPAASG GDKEAVARRL LRQERAGLQD
RKLDVVVRFN GSTEALDKLD ADAVSPTVSQ LSAVFEKADS RTGLHRAPGP PRAAGAPQVN
SKLVTKRSRV FQPPPPPPAP SGDGATEKER GPGGQPPQH RVAPARPPPK PREVRKIKPV
EVEESGESEA ESAPGEVIQA EVTVHAALLEN GSTPATTASP APEEPKAEAV PEEEEAAVA
TLERGVNDR APDMAPEEVD ESKKEDFSEA DLVDVSAYSG LGEDSGGSAL EEDDEEDED
GEPPYEPESG CVEIPLSEE EDPAPSRKIH FSTAPIQVFS TYSNEDYDRR NEDVDPMAAS
AEYELEKRV RLELFPVELE KDSEGLGISI IGMGAGADMG LEKLGIFVKT VTEGGAHRD
GRIQVNDLLV EVDGTSLGV TQSFASVLR NTKGRVRFMI GRERPGEQSE VAQLIQQTLE
QERWQREMME QRYAQGEDD EETGEYATDE DEELSPTFFG GEMAIIEVFEL AENEDALSPV
EMEPEKLVHK FKELQIKHAV TEAEIQLKR KLQSLEQEKGRWRVEKAQLE QSVEENKERM

EKLEGYWGEA QSLCQAVDEH LRETQAQYQA LERKYSKAKR LIKDYQQKEI EFLKKETAQR
RVLEESELAR KEEMDKLLDK ISELEGNLQT LRNSNST

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.

Product Details

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): <ol style="list-style-type: none">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:	PPP1R9B
Alternative Name:	Ppp1r9b (PPP1R9B Products)
Background:	Neurabin-2 (Neurabin-II) (Protein phosphatase 1 regulatory subunit 9B) (Spinophilin),FUNCTION: Seems to act as a scaffold protein in multiple signaling pathways. Modulates excitatory synaptic transmission and dendritic spine morphology. Binds to actin filaments (F-actin) and shows cross-linking activity. Binds along the sides of the F-actin. May play an important role in linking the actin cytoskeleton to the plasma membrane at the synaptic junction. Believed to target protein phosphatase 1/PP1 to dendritic spines, which are rich in F-actin, and regulates its specificity toward ion channels and other substrates, such as AMPA-type and NMDA-type glutamate receptors. Plays a role in regulation of G-protein coupled receptor signaling, including dopamine D2 receptors and alpha-adrenergic receptors. May establish a signaling complex for dopaminergic neurotransmission through D2 receptors by linking receptors downstream signaling molecules and the actin cytoskeleton. Binds to ADRA1B and RGS2 and mediates regulation of ADRA1B signaling. May confer to Rac signaling specificity by binding to both, RacGEFs and Rac effector proteins. Probably regulates p70 S6 kinase activity by forming a complex with TIAM1. Required for hepatocyte growth factor (HGF)-induced cell migration (By similarity). {ECO:0000250}.
Molecular Weight:	89.5 kDa
UniProt:	Q6R891
Pathways:	Regulation of G-Protein Coupled Receptor Protein Signaling

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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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. 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)
