Datasheet for ABIN3086981

RBPMS Protein (AA 1-196) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	RBPMS
Protein Characteristics:	AA 1-196
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This RBPMS protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MNNGGKAEKE NTPSEANLQE EEVRTLFVSG LPLDIKPREL YLLFRPFKGY EGSLIKLTSK QPVGFVSFDS RSEAEAAKNA LNGIRFDPEI PQTLRLEFAK ANTKMAKNKL VGTPNPSTPL PNTVPQFIAR EPYELTVPAL YPSSPEVWAP YPLYPAELAP ALPPPAFTYP ASLHAQMRWL PPSEATSQGW KSRQFC **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.
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)

Product Details

Grade:	Crystallography grade

Target Details

Target:	RBPMS
Alternative Name:	RBPMS (RBPMS Products)
Background:	RNA-binding protein with multiple splicing (RBP-MS) (RBPMS) (Heart and RRM expressed sequence) (Hermes),FUNCTION: [Isoform A]: RNA binding protein that mediates the regulation of pre-mRNA alternative splicing (AS) (PubMed:24860013, PubMed:26347403). Acts either as activator (FLNB, HSPG2, LIPA1, MYOCD, PTPRF and PPFIBP1) or repressor (TPM1, ACTN1, ITGA7, PIEZO1, LSM14B, MBNL1 and MBML2) of splicing events on specific pre-mRNA targets (By similarity). Together with RNA binding proteins RBFOX2 and MBNL1/2, activates a splicing program associated with differentiated contractile vascular smooth muscle cells (SMC) by regulating AS of numerous pre-mRNA involved in actin cytoskeleton and focal adhesion machineries, suggesting a role in promoting a cell differentiated state (By similarity). Binds to introns, exons and 3'-UTR associated with tandem CAC trinucleotide motifs separated by a variable spacer region, at a minimum as a dimer. The minimal length of RNA required for RBPMS-binding tandem CAC motifs is 15 nt, with spacing ranging from 1 to 9 nt. Can also bind to CA dinucleotide repeats (PubMed:24860013, PubMed:26347403). Mediates repression of TPM1 exon 3 by binding to CAC tandem repeats in the flanking intronic regions, followed by higher-order oligomerization and heterotypic interactions with other splicing regulators including MBNL1 and RBFOX2, which prevents assembly of ATP-dependent splicing complexes (By similarity). {ECO:0000250|UniProtKB:A0A8I6G705, ECO:0000269|PubMed:24860013, ECO:0000269|PubMed:26347403}., FUNCTION: [Isoform C]: Acts as a regulator of pre-mRNA alternative splicing (AS) (By similarity). Binds mRNA (PubMed:17099224). Regulates AS of ACTN1, FLNB, although with lower efficiency than isoform A / RBPMSA (By similarity). Acts as coactivator of SMAD transcriptional activity in a TGFB1-dependent manner, possibly through increased phosphorylation of SMAD2 and SMAD3 at the C-terminal SSXS regions and promotion of the nuclear accumulation of SMAD proteins (PubMed:17099224). {ECO:0000250|UniProtKB:A0A8I6G705, ECO:0000269|PubMed:17099224}.
Molecular Weight:	21.8 kDa
UniProt:	Q93062

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 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. 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)

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

