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Datasheet for ABIN3119562

MRVI1 Protein (AA 1-885) (rho-1D4 tag)

Overview

Quantity:	1 mg
Target:	MRVI1
Protein Characteristics:	AA 1-885
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MRVI1 protein is labelled with rho-1D4 tag.
Application:	Crystallization (Crys), ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	MGMDLTCPFG ISPACGAQAS WSIFGADAAE VPGTRGHSQQ EAAMPHIPED EEPGPGEQAA QSPAGQGPPA AGVSCSPTPT IVLTGDATSP EGETDKNLAN RVHSPHKRLS HRHLKVSTAS LTSVDPAGHI IDLVNDQLPD ISISEEDKKK NLALLEEAKL VSERFLTRRG RKSRRSPGDS PSAVSPNLSP SASPTSSRSN SLTVPTPPDG DEADVSSPHP GEPNVPKGLA DRKQNDQRKV SQGRLAPRPP PVEKSKEIAI EQKENFDPLQ YPETTPKGLA PVTNSSGKMA LNSPQPGPVE SELGKQLLKT GWEQSPLPRS PTQDAAGVGP PASQGRGPAG EPMGPEAGSK AELPPTVSRP PLLRLSWDS GPEEPGPRLQ KVLAKLPLAE EEKRFAGKAG GKLAKAPGLK DFQIQVQVPR MQKLTKLREE HILMRNQNLV GLKLPLDSEA AEQEKGLPSE LSPAIEEEEE KSGLDVMPNI SDVLLRKLRLV HRSPLGSAPP LTEKEVENVF VQLSLAFRND SYTLESRLNQ AERERNLTEE NTEKELENFK ASITSSASLW HHCEHRETYQ KLLEDIAVLH RLAARLSSRA EVGAVRQEK RMSKATEVMM QYVENLKRTY EKDHAELMEF KKLANKQNSSR SCGPSEDGVP RTARMSLTL GKNMPRRRVS VAVVPKFNAL NLPGQTPSSS SIPSLPALSE SPNGKGSPLV TSALPALLEN
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GKTNGDPDCE ASAPALTLSC LEELSQETKA RMEEEAYSKG FQGLKKTKE LQDLKEEEEE
QKSESPEEPE EVEETEEEEK GPRSSKLEEL VHFLQVMYPK LCQHWQVIWM MAAVMLVLTV
VLGLYNSYNS CAEQADGPLG RSTCSAAQRD SWWSSGLQHE QPTEQ

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human MRVI1 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

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.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification:

Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells:

1. Membrane proteins are fractionated by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot.
2. The best performing detergent is used for solubilization and the proteins are purified via their rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate fractions are analyzed by Western blot.
3. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatograph. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Product Details

Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin-free.
Grade:	Crystallography grade

Target Details

Target:	MRVI1
Alternative Name:	MRVI1 (MRVI1 Products)
Background:	Plays a role as NO/PRKG1-dependent regulator of IP3-induced calcium release, its phosphorylation by PRKG1 inhibits bradykinin and IP3-induced calcium release from intracellular stores. Recruits PRKG1 to the endoplasmic reticulum and may mediate the assembly of PRKG1 and ITPR1 in a macrocomplex. Involved in PRKG1 signaling cascade leading to inhibition of platelet activation and aggregation. Mediates also NO-dependent inhibition of calcium signaling in gastrointestinal smooth muscle contributing to NO-dependent relaxation. {ECO:0000269 PubMed:14729908}.
Molecular Weight:	97.3 kDa Including tag.
UniProt:	Q9Y6F6

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:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

Handling

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)