

Datasheet for ABIN3092650

FRMPD4 Protein (AA 1-1322) (Strep Tag)



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Overview

Quantity:	1 mg
Target:	FRMPD4
Protein Characteristics:	AA 1-1322
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This FRMPD4 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	MDVFSFVKIA KLSSHRTKSS GWPPPSGTWG LSQVPPYGWE MTANRDGRDY FINHMTQAIP FDDPRLESCQ IIPPAPRKVE MRRDPVLGFG FVAGSEKPVV VRSVTPGGPS EGKLIPGDQI VMINDEPVSA APRERVIDLV RSCKESILLT VIQYPSPKS AFISAAKKAR LKSNPVKVRF SEEVIINGQV SETVKDNSLL FMPNVLKVYL ENGQTKSFRF DCSTSIKDVI LTLQEKLSIK GIEHFSLMLE QRTEGAGTKL LLLHEQETLT QVTQRPSSHK MRCLFRISFV PKDPIDLLRR DPVAFEYLYV QSCNDVVQER FGPELKYDIA LRLAALQMYI ATVTTKQTQK ISLKYIEKEW GLETFLPSAV LQSMKEKNIK KALSHLVKAN QNLVPPGKKL SALQAKVHYL KFLSDLRLYG GRVFKATLVQ AEKRSEVTLL VGPRYGISHV INTKTNLVAL LADFSHVNRI EMFSEEEESLV RVELHVLVDK PITLLMESSD AMNLACLTAG YYRLLVDSRR SIFNMANKKN TATQETGPEN KGKHNLLGPD WNCIPQMTTF IGEGEQEAQI TYIDSKQKTV EITDSTMCPK EHRHLYIDNA YSSDGLNQQL SQPGEAPCEA DYRSLAQ RSL LTLSGPETLK KAQESPRGAK VSFIFGDFAL DDGISPPTLG YETLLDEGPE MLEKQRNLYI GSANDMKGLD LTPEAEGIQF VENS VYANIG
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DKVSFQAAEG IEEPLLHDIC YAENTDDAED EDEVSCCEDL VVGEMNQPAI LNLSGSSDDI
IDLTSLPPPE GDDNEDDFLL RSLNMAIAAP PPGFRDSSDE EDSQSQAASF PEDKEKGSSL
QNDEIPVSLI DAVPTSAEGK CEKGLDNAVV STLGALEALS VSEEQQTSDN SGVAILRAYS
PESSSDSGNE TNSSEMTESS ELATAQKQSE NLSRMFLATH EGYHPLAEEQ TEFPAKTPA
GGLPPKSSHA LAARPATDLP PKVVPSKQLL HSDHMEMEPE TMETKSVTDY FSKLHMGSVA
YSCTSKRKSK LADGEGKAPP NGNTTGKKQQ GTKTAEMEEE ASGKFGTVSS RDSQHLSTFN
LERTA FRKDS QRWYVATEGG MAEKSGLEAA TGKTFPRASG LGAREAEGKE EGAPDGETSD
GSGLGQGDRF LTDVTCASSA KDLDNPEDAD SSTCDHPSKL PEADESVARL CDYHLAKRMS
SLQSEGHFSL QSSQGSSVDA GCGTGSSGSA CATPVESPLC PSLGKHLIPD ASGKGVNYIP
SEERAPGLPN HGATFKELHP QTEGMCPRMT VPALHTAINT EPLFGTLRDG CHRLPKIKET TV

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 -

Product Details

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)
Grade:	Crystallography grade

Target Details

Target:	FRMPD4
Alternative Name:	FRMPD4 (FRMPD4 Products)
Background:	FERM and PDZ domain-containing protein 4 (PDZ domain-containing protein 10) (PSD-95-interacting regulator of spine morphogenesis) (Preso),FUNCTION: Positive regulator of dendritic spine morphogenesis and density. Required for the maintenance of excitatory synaptic transmission. Binds phosphatidylinositol 4,5-bisphosphate. {ECO:0000269 PubMed:19118189}.
Molecular Weight:	144.4 kDa
UniProt:	Q14CM0

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies
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Application Details

as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Comment:

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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)



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