Datasheet for ABIN3094786

PRDM16 Protein (AA 1-1276) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	PRDM16
Protein Characteristics:	AA 1-1276
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PRDM16 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MRSKARARKL AKSDGDVVNN MYEPNRDLLA SHSAEDEAED SAMSPIPVGP PSPFPTSEDF TPKEGSPYEA PVYIPEDIPI PADFELRESS IPGAGLGVWA KRKMEAGERL GPCVVVPRAA AKETDFGWEQ ILTDVEVSPQ EGCITKISED LGSEKFCVDA NQAGAGSWLK YIRVACSCDD QNLTMCQISE QIYYKVIKDI EPGEELLVHV KEGVYPLGTV PPGLDEEPTF RCDECDELFQ SKLDLRRHKK YTCGSVGAAL YEGLAEELKP EGLGGGSGQA HECKDCERMF PNKYSLEQHM VIHTEEREYK CDQCPKAFNW KSNLIRHQMS HDSGKRFECE NCVKVFTDPS NLQRHIRSQH VGARAHACPD CGKTFATSSG LKQHKHIHST VKPFICEVCH KSYTQFSNLC RHKRMHADCR TQIKCKDCGQ MFSTTSSLNK HRRFCEGKNH YTPGGIFAPG LPLTPSPMMD KAKPSPSLNH ASLGFNEYFP SRPHPGSLPF STAPPTFPAL TPGFPGIFPP SLYPRPPLLP PTSLLKSPLN HTQDAKLPSP LGNPALPLVS AVSNSSQGTT AAAGPEEKFE SRLEDSCVEK LKTRSSDMSD GSDFEDVNTT TGTDLDTTTG TGSDLDSDVD SDPDKDKGKG KSAEGQPKFG GGLAPPGAPN

SVAEVPVFYS QHSFFPPPDE QLLTATGAAG DSIKAIASIA EKYFGPGFMG MQEKKLGSLP YHSAFPFQFL PNFPHSLYPF TDRALAHNLL VKAEPKSPRD ALKVGGPSAE CPFDLTTKPK DVKPILPMPK GPSAPASGEE QPLDLSIGSR ARASQNGGGR EPRKNHVYGE RKLGAGEGLP QVCPARMPQQ PPLHYAKPSP FFMDPIYSRV EKRKVTDPVG ALKEKYLRPS PLLFHPQMSA IETMTEKLES FAAMKADSGS SLQPLPHHPF NFRSPPPTLS DPILRKGKER YTCRYCGKIF PRSANLTRHL RTHTGEQPYR CKYCDRSFSI SSNLQRHVRN IHNKEKPFKC HLCNRCFGQQ TNLDRHLKKH EHENAPVSQH PGVLTNHLGT SASSPTSESD NHALLDEKED SYFSEIRNFI ANSEMNQAST RTEKRADMQI VDGSAQCPGL ASEKQEDVEE EDDDDLEEDD EDSLAGKSQD DTVSPAPEPQ AAYEDEEDEE PAASLAVGFD HTRRCAEDHE GGLLALEPMP TFGKGLDLRR AAEEAFEVKD VLNSTLDSEA LKHTLCRQAK NQAYAMMLSL SEDTPLHTPS QGSLDAWLKV TGATSESGAF HPINHL

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 in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	PRDM16
Alternative Name:	PRDM16 (PRDM16 Products)
Background:	Histone-lysine N-methyltransferase PRDM16 (EC 2.1.1.367) (PR domain zinc finger protein 16) (PR domain-containing protein 16) (Transcription factor MEL1) (MDS1/EVI1-like gene 1),FUNCTION: Binds DNA and functions as a transcriptional regulator (PubMed:12816872). Displays histone methyltransferase activity and monomethylates 'Lys-9' of histone H3 (H3K9me1) in vitro (By similarity). Probably catalyzes the monomethylation of free histone H3 in the cytoplasm which is then transported to the nucleus and incorporated into nucleosomes where SUV39H methyltransferases use it as a substrate to catalyze histone H3 'Lys-9' trimethylation (By similarity). Likely to be one of the primary histone methyltransferases along with MECOM/PRDM3 that direct cytoplasmic H3K9me1 methylation (By similarity). Functions in the differentiation of brown adipose tissue (BAT) which is specialized in dissipating chemical energy in the form of heat in response to cold or excess feeding while white adipose tissue (WAT) is specialized in the storage of excess energy and the control of systemic metabolism (By similarity). Together with CEBPB, regulates the differentiation of myoblastic precursors into brown adipose cells (By similarity). Functions as a repressor of TGF-beta signaling (PubMed:19049980). {ECO:0000250|UniProtKB:A2A935, ECO:0000269|PubMed:12816872, ECO:0000269|PubMed:19049980}., FUNCTION: [Isoform 4]: Binds DNA and functions as a transcriptional regulator (PubMed:12816872). Functions as a repressor of TGF-beta signaling (PubMed:14656887). May regulate granulocyte differentiation (PubMed:12816872).

Target Details

	{ECO:0000269|PubMed:12816872, ECO:0000269|PubMed:14656887}.
Molecular Weight:	140.3 kDa
UniProt:	Q9HAZ2
Pathways:	Stem Cell Maintenance, Brown Fat Cell Differentiation

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. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months