Datasheet for ABIN7561879

# PRDM16 Protein (AA 1-1275) (His tag)

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## Overview

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| Quantity: | 1 mg |
| Target: | PRDM16 |
| Protein Characteristics: | AA 1-1275 |
| Origin: | Mouse |
| Source: | HEK-293 Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This PRDM16 protein is labelled with His tag. |
| Application: | SDS-PAGE (SDS), Western Blotting (WB) |

## Product Details

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| Purpose: | Custom-made recombinat Prdm16 Protein expressed in mammalien cells. |
| Sequence: | MRSKARARKL AKSDGDVVNN MYEPDPDLLA GQSAEEETED GILSPIPMGP PSPFPTSEDF TPKEGSPYEA PVYIPEDIPI PPDFELRESS IPGAGLGIWA KRKMEIGERF GPYVVTPRAA LKEADFGWEM LTDTEVSSQE SCIKKQISED LGSEKFCVDA NQAGSGSWLK YIRVACSCDD QNLAMCQINE QIYYKVIKDI EPGEELLVHV KEGAYSLGVM APSLDEDPTF RCDECDELFQ CRLDLRRHKK YACSSAGAQL YEGLGEELKP EGLGVGSDGQ AHECKDCERM FPNKYSLEQH MIVHTEEREY KCDQCPKAFN WKSNLIRHQM SHDSGKRFEC ENCVKVFTDP SNLQRHIRSQ HVGARAHACP DCGKTFATSS GLKQHKHIHS TVKPFICEVC HKSYTQFSNL CRHKRMHADC RTQIKCKDCG QMFSTTSSLN KHRRFCEGKN HYTPGSIFTP GLPLTPSPMM DKTKPSPTLN HGGLGFSEYF PSRPHPGSLP FSAAPPAFPA LTPGFPGIFP PSLYPRPPLL PPTPLLKSPL NHAQDAKLPS PLGNPALPLV SAVSNSSQGA TAATGSEEKF DGRLEDAYAE KVKNRSPDMS DGSDFEDINT TTGTDLDTTT GTGSDLDSDL DSDRDKGKDK GKPVESKPEF GGASVPPGAM |

## Product Details

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| | NSVAEVPAFY SQHSFFPPPE EQLLTASGAA GDSIKAIASI AEKYFGPGFM SMQEKKLGSL PYHSVFPFQF LPNFPHSLYP FTDRALAHNL LVKAEPKSPR DALKVGGPSA ECPFDLTTKP KEAKPALLAP KVPLIPSSGE EQPLDLSIGS RARASQNGGG REPRKNHVYG ERKPGVSEGL PKVCPAQLPQ QPSLHYAKPS PFFMDPIYRV EKRKVADPVG VLKEKYLRPS PLLFHPQMSA IETMTEKLES FAAMKADSGS SLQPLPHHPF NFRSPPPTLS DPILRKGKER YTCRYCGKIF PRSANLTRHL RTHTGEQPYR CKYCDRSFSI SSNLQRHVRN IHNKEKPFKC HLCNRCFGQQ TNLDRHLKKH EHEGAPVSQH SGVLTNHLGT SASSPTSESD NHALLDEKED SYFSEIRNFI ANSEMNQAST RMDKRPEIQD LDSNPPCPGS ASAKPEDVEE EEEEELEEED DDSLAGKSQE DTVSPTPEPQ GVYEDEEDEE PPSLTMGFDH TRRCVEERGG GLLALEPTPT FGKGLDLRRA AEEAFEVKDV LNSTLDSEVL KQTLYRQAKN QAYAMMLSLS EDTPLHAPSQ SSLDAWLNIT GPSSESGAFN PINHL **Sequence without tag. The proposed Purification-Tag is based on experiences 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:<br>• Made to order protein - from design to production - by highly experienced protein experts.<br>• Protein expressed in mammalien cells and purified in one-step affinity chromatography<br>• The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.<br>• State-of-the-art algorithm used for plasmid design (Gene synthesis).<br><br>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.<br><br>If you are not interested in a full length protein, please contact us for individual protein fragments.<br><br>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. |
| Purity: | > 90 % as determined by Bis-Tris Page, Western Blot |
| Grade: | custom-made |

## Target Details

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| Target: | PRDM16 |
| Alternative Name: | Prdm16 (PRDM16 Products) |

## Target Details

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| 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:18483224). Displays histone methyltransferase activity and monomethylates 'Lys-9' of histone H3 (H3K9me1) in vitro (PubMed:22939622). 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 (PubMed:22939622). Likely to be one of the primary histone methyltransferases along with MECOM/PRDM3 that direct cytoplasmic H3K9me1 methylation (PubMed:22939622). 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 (PubMed:17618855, PubMed:18483224). Together with CEBPB, regulates the differentiation of myoblastic precursors into brown adipose cells (PubMed:18719582, PubMed:19641492). Functions as a repressor of TGF-beta signaling. {ECO:0000269\|PubMed:17618855, ECO:0000269\|PubMed:18483224, ECO:0000269\|PubMed:18719582, ECO:0000269\|PubMed:19641492, ECO:0000269\|PubMed:22939622}. |
| Molecular Weight: | 140.9 kDa |
| UniProt: | A2A935 |
| Pathways: | Stem Cell Maintenance, Brown Fat Cell Differentiation |

## Application Details

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| 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. |
| Restrictions: | For Research Use only |

## Handling

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| Format: | Liquid |
| Buffer: | The buffer composition is at the discretion of the manufacturer. |
| Handling Advice: | Avoid repeated freeze-thaw cycles. |

## Handling

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| Storage: | -80 °C |
| Storage Comment: | Store at -80°C. |
| Expiry Date: | 12 months |