

## Recombinant Human PR domain containing 16 Protein, His tagged

**Cat. No.** PRDM16-068H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| <b>Product Overview</b> | Recombinant human PRDM16 protein (Q9HAZ2) (Phe 54-Glu 226) with a His tag at the C-terminus was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>ProteinLength</b>    | 54-226aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b>      | <p>Binds DNA and functions as a transcriptional regulator. Displays histone methyltransferase activity and monomethylates 'Lys-9' of histone H3 (H3K9me1) in vitro. 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. Likely to be one of the primary histone methyltransferases along with MECP/PRDM3 that direct cytoplasmic H3K9me1 methylation. 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. Together with CEBPB, regulates the differentiation of myoblastic precursors into brown adipose cells. Functions as a repressor of TGF-beta signaling.</p> |

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|                       |                                                                                                                                                                                                                               |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tag</b>            | C-His                                                                                                                                                                                                                         |
| <b>Molecular Mass</b> | 20.6 kDa                                                                                                                                                                                                                      |
| <b>Endotoxin</b>      | Less than 1.0 EU/μg by the LAL method.                                                                                                                                                                                        |
| <b>Purity</b>         | >95% as determined by SDS-PAGE.                                                                                                                                                                                               |
| <b>Storage</b>        | Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles. |
| <b>Storage Buffer</b> | Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.                                                                                                                                         |
| <b>Reconstitution</b> | Reconstitute at 250 μg/mL in sterile water.                                                                                                                                                                                   |

## GENE INFORMATION

|                        |                                                                                                                                                                        |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | PRDM16 PR domain containing 16 [ Homo sapiens (human) ]                                                                                                                |
| <b>Official Symbol</b> | PRDM16                                                                                                                                                                 |
| <b>Synonyms</b>        | PRDM16; PR domain containing 16; PR domain zinc finger protein 16; KIAA1675; MDS1/EVI1 like; MEL1; MGC166915; PFM13; transcription factor MEL1; MDS1/EVI1-like gene 1; |
| <b>Gene ID</b>         | 63976                                                                                                                                                                  |
| <b>mRNA Refseq</b>     | NM_022114                                                                                                                                                              |

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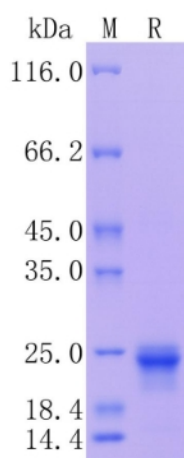
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**Protein Refseq** NP\_071397

**MIM** 605557

**UniProt ID** Q9HAZ2

**Protein on SDS-  
PAGE under  
reducing (R)  
condition.**



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