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# PRDM16 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20831c

## Product Information

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| **Application** | WB, E |
| **Primary Accession** | Q9HAZ2 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB49517 |
| **Calculated MW** | 140251 |

## Additional Information

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| **Gene ID** | 63976 |
| **Other Names** | PR domain zinc finger protein 16, PR domain-containing protein 16, Transcription factor MEL1, MDS1/EVI1-like gene 1, PRDM16, KIAA1675, MEL1, PFM13 |
| **Target/Specificity** | This PRDM16 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 771-804 amino acids from the Central region of human PRDM16. |
| **Dilution** | WB~~1:2000 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | PRDM16 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | PRDM16 ( HGNC:14000) |
| **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 |

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| | 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). |
| **Cellular Location** | Nucleus. Cytoplasm |
| **Tissue Location** | Expressed in uterus and kidney. Expressed in both cardiomyocytes and interstitial cells. |

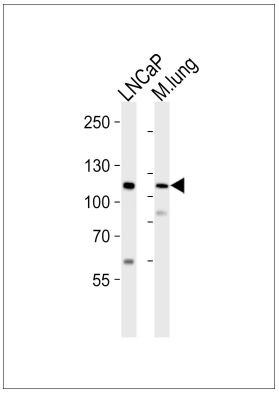
## Background

Binds DNA and functions as a transcriptional regulator. 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 also as a repressor of TGF-beta signaling. Isoform 4 may regulate granulocytes differentiation.

## References


Mochizuki N.,et al.Blood 96:3209-3214(2000).
Fang W.,et al.Submitted (AUG-2000) to the EMBL/GenBank/DDBJ databases.
Nagase T.,et al.DNA Res. 7:347-355(2000).
Nakajima D.,et al.DNA Res. 9:99-106(2002).
Gregory S.G.,et al.Nature 441:315-321(2006).


## Images




Western blot analysis of lysates from LNCaP cell line, mouse lung tissue lysate(from left to right), using PRDM16 Antibody (Center)(Cat. #AP20831c). AP20831c was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 35ug per lane.