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PRDM16 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8585b

Specification

PRDM16 Antibody - Product Information

Application	**WB,E**
Primary Accession	Q9HAZ2
Reactivity	**Human**
Host	**Mouse**
Clonality	**monoclonal**
Isotype	**IgG1,k**
Calculated MW	**140251**

PRDM16 Antibody - Additional Information

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 mouse immunized with a recombinant protein between 779-996 amino acids from PRDM16.

Dilution
WB~~1:4000

Format
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

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 is for research use only and not for use in diagnostic or therapeutic procedures.

PRDM16 Antibody - Protein Information

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 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

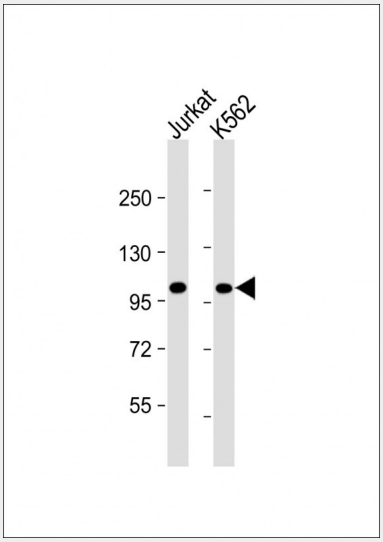
Tissue Location
Expressed in uterus and kidney. Expressed in both cardiomyocytes and interstitial cells.

PRDM16 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PRDM16 Antibody - Images



All lanes : Anti-PRDM16 Antibody at 1:4000 dilution Lane 1: Jurkat whole cell lysate Lane 2: K562 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 140 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

PRDM16 Antibody - 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.

PRDM16 Antibody - 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).