

Rabbit PRDM16 Polyclonal Antibody | anti-PRDM16 antibody

PRDM16 Antibody

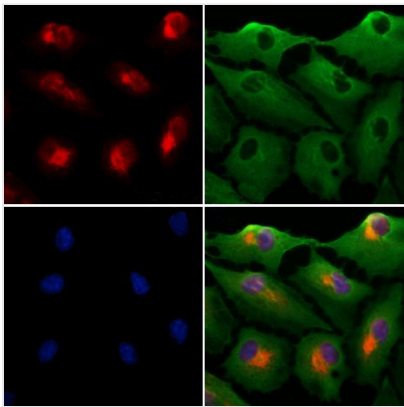
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA31196	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig(100%), Horse(100%), Sheep(100%), Rabbit(100%), Dog(100%), Chicken(100%)	ELISA

PRODUCT SYNONYMS

PRDM16; Polyclonal Antibody; PRDM16 Antibody; CMD1LL; KIAA1675; LVNC8; MDS1/EVI1 like gene 1; MDS1/EVI1-like gene 1; MEL1; PFM 13; PFM13; PR domain containing 16; PR domain containing protein 16; PR domain zinc finger protein 16; PR domain-containing protein 16; PRD16_HUMAN; Prdm16; Transcription factor MEL 1; Transcription factor MEL1; anti-PRDM16 antibody

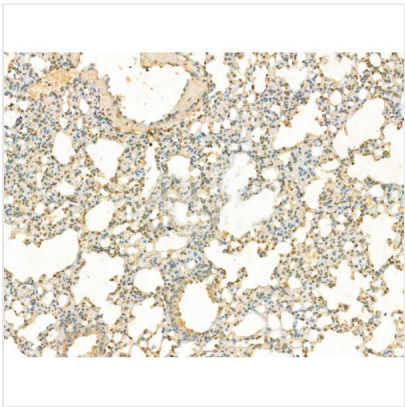
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig(100%), Horse(100%), Sheep(100%), Rabbit(100%), Dog(100%), Chicken(100%)
Clonality	Polyclonal
Isotype	IgG
Specificity	PRDM16 Antibody detects endogenous levels of total PRDM16.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin (Thermo Fisher Scientific).
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-PRDM16 antibody	ELISA
Application Notes	WB: 1:500-1:2000 IF: 1:100-1:500 ICC: 1:100-1:500 IHC: 1:50-1:200 ELISA(peptide): 1:20,000-1:40,000
Immunogen	A synthesized peptide derived from human PRDM16, corresponding to a region within the internal amino acids.
Fragment	Fab fragment
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IF (Immunofluorescence)

AAA31196 staining A549 cells by IF/ICC. The samples were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25°C. Samples were then incubated with primary Ab(AAA31196) and mouse anti-beta tubulin Ab(T0023) for 1 hour at 37°C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody. The nuclear counter stain is DAPI (blue).



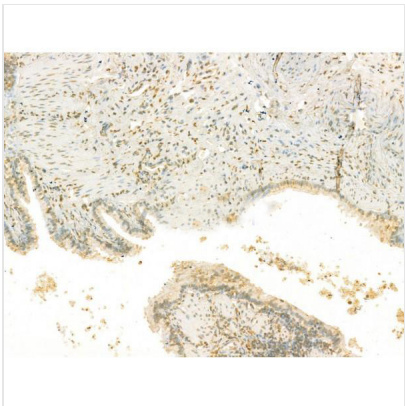
IHC (Immunohistochemistry-Paraffin)

AAA31196 at 1/100 staining Mouse lung tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4°C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



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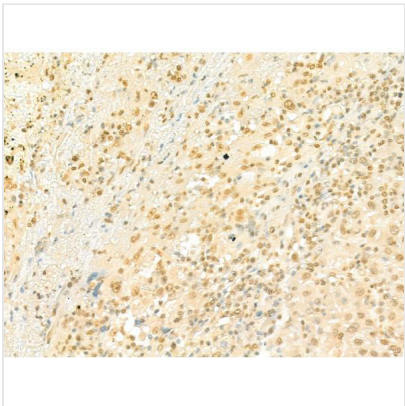
IHC (Immunohistochemistry-Paraffin)

AAA31196 at 1/100 staining Rat lung tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4°C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



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IHC (Immunohistochemistry-Paraffin)

AAA31196 at 1/100 staining Human liver cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4°C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-PRDM16 antibody	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). 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). Subcellular Location: Nucleus. Cytoplasm. Tissue Specificity: Expressed in uterus and kidney. Expressed in both cardiomyocytes and interstitial cells. Subunit Structure: Interacts with CEBPA, CEBPB and CEBPD; the interaction is direct. Interacts with PPARG and PPARA; controls brown adipocytes differentiation. Interacts with CTBP1 and CTBP2; represses the expression of WAT-specific genes. Interacts with PPARGC1A and PPARGC1B; interaction with PPARGC1A or PPARGC1B activates the transcription of BAT-specific gene (By similarity). Interacts with HDAC1, SKI, SMAD2 and SMAD3; the interaction with SKI promotes the recruitment of SMAD3-HDAC1 complex on the promoter of TGF-beta target genes (PubMed:19049980). Interacts with ZNF516; the interaction is direct and may play a role in the transcription of brown adipose tissue-specific gene (PubMed:25578880). Similarity: Belongs to the PRDM16 family.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	55665817
NCBI GeneID	63976
UniProt Accession #	Q9HAZ2
Molecular Weight	Observed Molecular Weight: (Observed)140kD. Predicted Molecular Weight: (Calculated)140kDa.
NCBI Official Synonym Full Names	PR/SET domain 16
NCBI Official Symbol	PRDM16
NCBI Official Synonym Symbols	MEL1; KMT8F; LVNC8; PFM13; CMD1LL
NCBI Protein Information	histone-lysine N-methyltransferase PRDM16
UniProt Protein Name	PR domain zinc finger protein 16
UniProt Gene Name	PRDM16
UniProt Synonym Gene Names	KIAA1675; MEL1; PFM13; MDS1/EV11-like gene 1
UniProt Entry Name	PRD16_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.