

PRDM16 Blocking Peptide (Center)
Synthetic peptide
Catalog # BP20831c**Specification**

PRDM16 Blocking Peptide (Center) - Product InformationPrimary Accession [Q9HAZ2](#)**PRDM16 Blocking Peptide (Center) - 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

The synthetic peptide sequence is selected from aa 771-784 of HUMAN PRDM16

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PRDM16 Blocking Peptide (Center) - 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 Blocking Peptide (Center) - Protocols

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

- [Blocking Peptides](#)

PRDM16 Blocking Peptide (Center) - Images**PRDM16 Blocking Peptide (Center) - 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 Blocking Peptide (Center) - 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).
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Gregory S.G.,et al.Nature 441:315-321(2006).