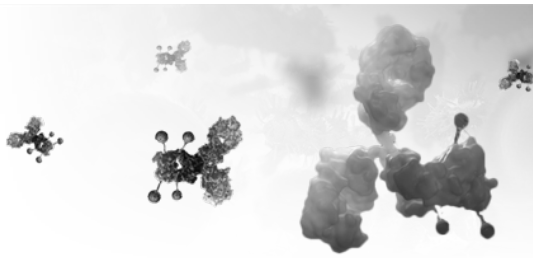

Rabbit Anti-PRDM9 polyclonal antibody (CABT-RM107)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	Detects Histone-lysine N-methyltransferase PRDM9 in human and mouse cells. It targets an epitope within 191 amino acids from the N-terminal half.
Target	PRDM9
Immunogen	GST-tagged recombinant fragment corresponding to 191 amino acids from the N-terminal half of human Histone-lysine N-methyltransferase PRDM9.
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Human, Mouse
Purification	Affinity Purified
Conjugate	unconjugated
Applications	WB
Molecular Weight	~90 kda observed; 103.37 kDa calculated. Uncharacterized bands may be observed in some lysate(s).
Format	Liquid
Size	25 µg
Buffer	0.1 M Tris-Glycine (pH 7.4), 150 mM NaCl
Preservative	0.05% sodium azide

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Storage	Stable for 1 year at 2-8°C from date of receipt.

BACKGROUND

Introduction	Histone-lysine N-methyltransferase PRDM9 is encoded by PRDM9 gene in human. PRDM9 is a zinc-finger protein that catalyzes histone H3 Lysine 4 trimethylation (H3K4me3), but lacks capacity to mono- and dimethylate Lysine 4 of histone H3. H3 Lysine -4 methylation plays a vital role in the transcriptional activation of genes during early meiotic prophase. PRDM9 contains multiple domains, including a Kruppel-associated box (KRAB) domain (aa 23-86), an SSX repression domain (SSXRD), a PRD1-BF1 and RIZ homologous region, a subclass of SET (PR/SET) domain (aa 244-358), and a tandem array of C2H2 zinc fingers. The zinc finger array recognizes a short sequence motif, leading to local H3K4me3, and meiotic recombination hotspot activity. PRDM9 is reported to be highly polymorphic, both within and between mammalian species. It is shown that most of the naturally occurring sequence polymorphisms in PRDM9 change the identity of the amino acids contacting DNA and/or the number and arrangement of individual fingers in the DNA-binding zinc-finger domains. This allows PRDM9 variants to target a large number of DNA sequences, thereby expanding the distribution of recombination sites.
Keywords	PRDM9; PR domain containing 9; minisatellite binding protein 3 (115kD) , minisatellite binding protein 3, 115kDa , MSBP3; histone-lysine N-methyltransferase PRDM9; PFM6; PR domain containing protein 9; ZNF899; PR domain zinc finger protein 9; minisatellite binding protein 3 (115kD); minisatellite binding protein 3, 115kDa

GENE INFORMATION

Entrez Gene ID	56979
UniProt ID	Q9NQV7

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