

PRMT4 Monoclonal Antibody

Catalog No :	YM0535
Reactivity :	Human;Rat;Monkey
Applications :	WB;IHC;IF;FCM;ELISA
Target :	CARM1
Fields :	>>Endocrine resistance
Gene Name :	CARM1
Protein Name :	Histone-arginine methyltransferase CARM1
Human Gene Id :	10498
Human Swiss Prot No :	Q86X55
Mouse Swiss Prot No :	Q9WVG6
Rat Gene Id :	363026
Rat Swiss Prot No :	Q4AE70
Immunogen :	Purified recombinant fragment of human PRMT4 expressed in E. Coli.
Specificity :	PRMT4 Monoclonal Antibody detects endogenous levels of PRMT4 protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Monoclonal, Mouse
Dilution :	WB 1:500 - 1:2000. IHC 1:200 - 1:1000. IF 1:200 - 1:1000. Flow cytometry: 1:200 - 1:400. ELISA: 1:10000. Not yet tested in other applications.
Purification :	Affinity purification

Storage Stability : -15°C to -25°C/1 year (Do not lower than -25°C)

Molecularweight : 66kD

P References :

1. FASEB J. 2008 Sep;22(9):3337-47.
2. Nucleic Acids Res. 2008 Jun;36(10):3202-13.

Background :

This gene belongs to the protein arginine methyltransferase (PRMT) family. The encoded enzyme catalyzes the methylation of guanidino nitrogens of arginyl residues of proteins. The enzyme acts specifically on histones and other chromatin-associated proteins and is involved in regulation of gene expression. The enzyme may act in association with other proteins or within multi-protein complexes and may play a role in cell type-specific functions and cell lineage specification. A related pseudogene is located on chromosome 9. [provided by RefSeq, Aug 2013],

Function :

catalytic activity:S-adenosyl-L-methionine + histone-arginine = S-adenosyl-L-homocysteine + histone-N(omega)-methyl-arginine.,function:Methylates (mono- and asymmetric dimethylation) the guanidino nitrogens of arginyl residues in several proteins involved in DNA packaging, transcription regulation, and mRNA stability. Recruited to promoters upon gene activation together with histone acetyltransferases from EP300/P300 and p160 families, methylates histone H3 at 'Arg-17' and activates transcription via chromatin remodeling. During nuclear hormone receptor activation and TCF7L2/TCF4 activation, acts synergically with EP300/P300 and either one of the p160 histone acetyltransferases NCOA1/SRC1, NCOA2/GRIP1 and NCOA3/ACTR or CTNNB1/beta-catenin to activate transcription. During myogenic transcriptional activation, acts together with NCOA3/ACTR as a coactivator for MEF2C. During monocyte inflam

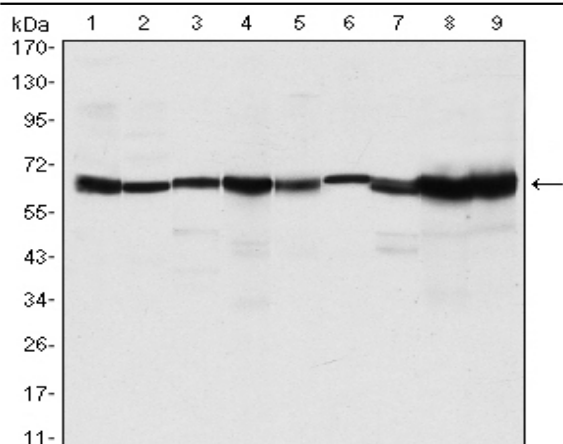
Subcellular Location :

Nucleus . Cytoplasm . Mainly nuclear during the G1, S and G2 phases of the cell cycle (PubMed:19843527). Cytoplasmic during mitosis, after breakup of the nuclear membrane (PubMed:19843527)..

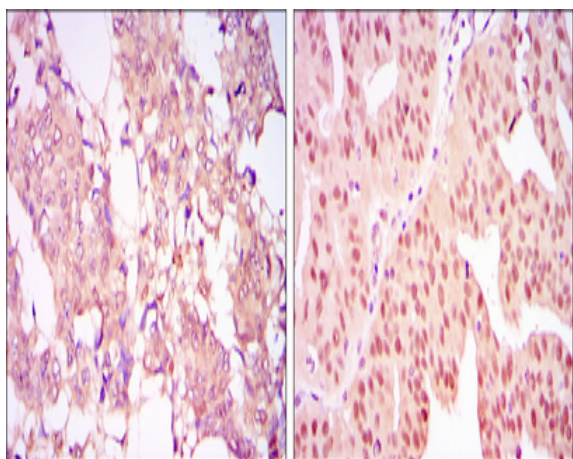
Expression :

Overexpressed in prostate adenocarcinomas and high-grade prostatic intraepithelial neoplasia.

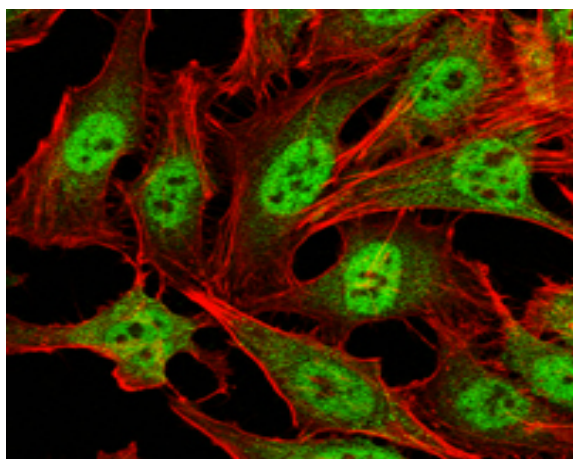
Products Images



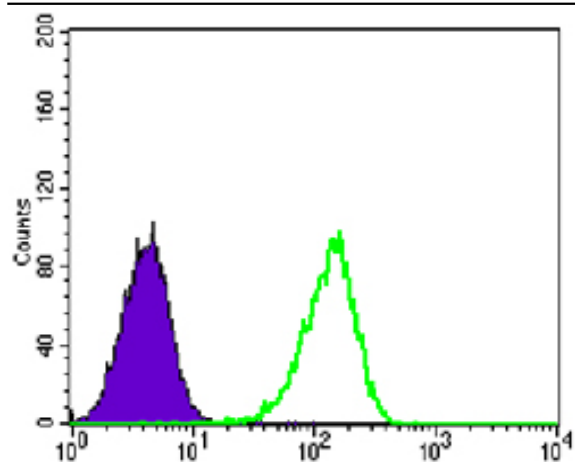
Western Blot analysis using PRMT4 Monoclonal Antibody against MCF-7 (1), HeLa (2), NIH/3T3 (3), HL-60 (4), LNCap (5), Jurkat (6), PC-3 (7), Cos7 (8), and PC-12 (9) cell lysate.



Immunohistochemistry analysis of paraffin-embedded breast cancer tissues (left) and ovarian cancer tissues (right) with DAB staining using PRMT4 Monoclonal Antibody.



Immunofluorescence analysis of HeLa cells using PRMT4 Monoclonal Antibody (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



Flow cytometric analysis of Lovo cells using PRMT4 Monoclonal Antibody (green) and negative control (purple).