

PRMT4 / CARM1 Antibody (N-Terminus)
Rabbit Polyclonal Antibody
Catalog # ALS16008**Specification****PRMT4 / CARM1 Antibody (N-Terminus) - Product Information**

Application	WB, IF
Primary Accession	Q86X55
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	66kDa KDa

PRMT4 / CARM1 Antibody (N-Terminus) - Additional Information**Gene ID** 10498**Other Names**

Histone-arginine methyltransferase CARM1, 2.1.1.-, 2.1.1.125, Coactivator-associated arginine methyltransferase 1, Protein arginine N-methyltransferase 4, CARM1, PRMT4

Target/Specificity

Human PRMT4 / CARM1

Reconstitution & Storage

Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

Precautions

PRMT4 / CARM1 Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

PRMT4 / CARM1 Antibody (N-Terminus) - Protein Information**Name** CARM1**Synonyms** PRMT4**Function**

Methylates (mono- and asymmetric dimethylation) the guanidino nitrogens of arginyl residues in several proteins involved in DNA packaging, transcription regulation, pre-mRNA splicing, and mRNA stability (PubMed: [12237300](http://www.uniprot.org/citations/12237300), PubMed: [16497732](http://www.uniprot.org/citations/16497732), PubMed: [19405910](http://www.uniprot.org/citations/19405910)). Recruited to promoters upon gene activation together with histone acetyltransferases from EP300/P300 and p160 families, methylates histone H3 at 'Arg-17' (H3R17me), forming mainly asymmetric dimethylarginine (H3R17me2a), leading to activates transcription via chromatin remodeling (PubMed: [12237300](http://www.uniprot.org/citations/12237300), PubMed: [12237300](http://www.uniprot.org/citations/12237300), PubMed: [12237300](http://www.uniprot.org/citations/12237300)).

[16497732](http://www.uniprot.org/citations/16497732), PubMed: [19405910](http://www.uniprot.org/citations/19405910)). 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 (By similarity). During myogenic transcriptional activation, acts together with NCOA3/ACTR as a coactivator for MEF2C (By similarity). During monocyte inflammatory stimulation, acts together with EP300/P300 as a coactivator for NF-kappa-B (By similarity). Acts as a coactivator for PPARG, promotes adipocyte differentiation and the accumulation of brown fat tissue (By similarity). Plays a role in the regulation of pre-mRNA alternative splicing by methylation of splicing factors (By similarity). Also seems to be involved in p53/TP53 transcriptional activation (By similarity). Methylates EP300/P300, both at 'Arg-2142', which may loosen its interaction with NCOA2/GRIP1, and at 'Arg-580' and 'Arg-604' in the KIX domain, which impairs its interaction with CREB and inhibits CREB-dependent transcriptional activation (PubMed: [15731352](http://www.uniprot.org/citations/15731352)). Also methylates arginine residues in RNA-binding proteins PABPC1, ELAVL1 and ELAV4, which may affect their mRNA- stabilizing properties and the half-life of their target mRNAs (By similarity). Acts as a transcriptional coactivator of ACACA/acetyl-CoA carboxylase by enriching H3R17 methylation at its promoter, thereby positively regulating fatty acid synthesis (By similarity). Independently of its methyltransferase activity, involved in replication fork progression: promotes PARP1 recruitment to replication forks, leading to poly-ADP-ribosylation of chromatin at replication forks and reduced fork speed (PubMed: [33412112](http://www.uniprot.org/citations/33412112)).

Cellular Location

Nucleus. Cytoplasm. Chromosome. Note=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) Localizes to replication forks (PubMed:33412112)

Tissue Location

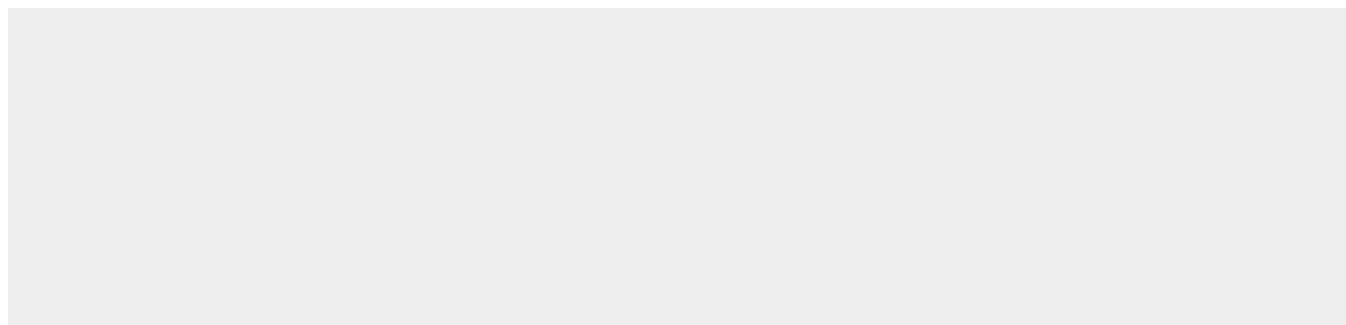
Overexpressed in prostate adenocarcinomas and high- grade prostatic intraepithelial neoplasia

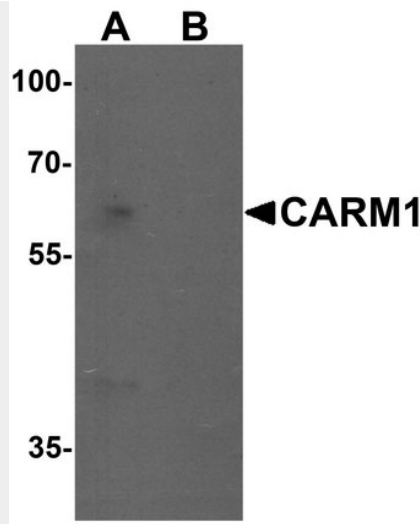
PRMT4 / CARM1 Antibody (N-Terminus) - Protocols

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

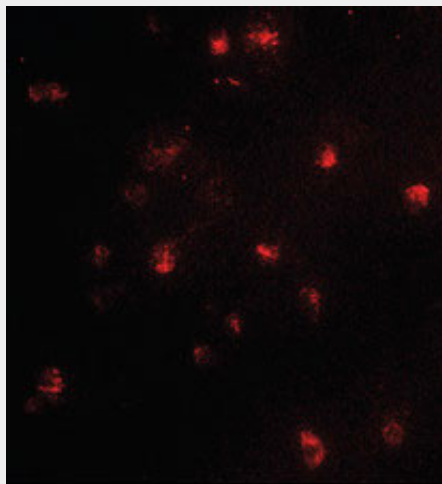
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

PRMT4 / CARM1 Antibody (N-Terminus) - Images





Western blot analysis of CARM1 in Jurkat cell lysate with CARM1 antibody at 1 ug/ml in (A) the...



Immunofluorescence of CARM1 in Jurkat cells with CARM1 antibody at 5 ug/ml.

PRMT4 / CARM1 Antibody (N-Terminus) - Background

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PRMT4 / CARM1 Antibody (N-Terminus) - References

Grimwood J.,et al.Nature 428:529-535(2004).

Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.

Bechtel S.,et al.BMC Genomics 8:399-399(2007).

Li H.,et al.J. Biol. Chem. 277:44623-44630(2002).

Hong H.,et al.Cancer 101:83-89(2004).