

Immunotag™ PRMT4/CARM1 mouse mAb

Antibody Specification	
Catalog No.	ITM1215
Product Description	Immunotag™ PRMT4/CARM1 mouse mAb
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	PRMT4/CARM1
Clonality	Monoclonal
Storage/Stability	-20°C/1 year
Application	WB,IP
Recommended Dilution	wb 1:200-1:500
Concentration	1 mg/ml
Reactive Species	Human,Mouse
Host Species	Mouse
Immunogen	Purified recombinant human PRMT4/CARM1 protein fragments expressed in E.coli.
Specificity	This antibody detects endogenous levels of PRMT4/CARM1 and does not cross-react with related proteins.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen
Form	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Gene Name	carm1
Accession No.	Q86X55 Q9WVG6
Alternate Names	carm1;CARM1_HUMAN;Coactivator associated arginine methyltransferase 1;Coactivator-associated arginine methyltransferase 1;Histone arginine methyltransferase CARM 1; Histone arginine methyltransferase CARM1;Histone-arginine methyltransferase CARM1;PRMT 4;PRMT4;Protein arginine methyltransferase;Protein arginine N methyltransferase 4; Protein arginine N-methyltransferase 4.

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Description	coactivator associated arginine methyltransferase 1(CARM1) Homo sapiens 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],
Protein Expression	Amygdala,Retinoblastoma,Skin,
Subcellular Localization	nucleus,nucleoplasm,cytoplasm,cytosol,RNA polymerase II transcription factor complex,
Protein Function	<p>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 inflammatory stimulation, acts together with EP300/P300 as a coactivator for NF-kappa-B. Also seems to be involved in p53/TP53 transcriptional activation. 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. 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.,miscellaneous:Methylation of H3-R17 by CARM1 is stimulated by preacetylation of H3-K18/H3-K23 by EP300 and blocked by citrullination of H3-R17 by PADI4.,similarity:Belongs to the protein arginine N-methyltransferase family.,subunit:Homodimer (Probable). Interacts with the C-terminus of NCOA2/GRIP1, NCO3/ACTR and NCOA1/SRC1. Part of a complex consisting of CARM1, EP300/P300 and NCOA2/GRIP1. Interacts with FLII, TP53, myogenic factor MEF2, EP300/P300, CREBBP and CTNNB1. Interacts with SNRPC (By similarity). Interacts with NR1H4. Interacts with RELA. Interacts with HTLV-1 Tax-1.,tissue specificity:Overexpressed in prostate adenocarcinomas and high-grade prostatic intraepithelial neoplasia.,</p>
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