



Anti-CARM1 (aa 1-100) polyclonal antibody (DPABH-21608)

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

PRODUCT INFORMATION

Antigen Description

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. 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 activate 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. Acts as coactivator for PPARγ, promotes adipocyte differentiation and the accumulation of brown fat tissue. Plays a role in the regulation of pre-mRNA alternative splicing by methylation of splicing factors. 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.

Immunogen	Synthetic peptide conjugated to KLH derived from within residues 1 - 100 of Human PRMT4.
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Human
Purification	Immunogen affinity purified

Conjugate	Unconjugated
Applications	WB, ICC/IF
Format	Liquid
Size	100 µg
Buffer	pH: 7.40; Constituent: PBS
Preservative	0.02% Sodium Azide
Storage	Store at 4°C short term (1-2 weeks). Aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

GENE INFORMATION

Gene Name	CARM1 coactivator-associated arginine methyltransferase 2 [Homo sapiens]
Official Symbol	CARM1
Synonyms	CARM1; coactivator-associated arginine methyltransferase 1; PRMT4; histone-arginine methyltransferase CARM1; protein arginine N-methyltransferase 4;
Entrez Gene ID	10498
Protein Refseq	NP_954592.1
UniProt ID	Q86X55
Pathway	Activation of gene expression by SREBF (SREBP); BMAL1:CLOCK,NPAS2 activates circadian gene expression; Coregulation of Androgen receptor activity; Direct p53 effectors
Function	beta-catenin binding; histone methyltransferase activity; histone methyltransferase activity (H3-R17 specific); histone-arginine N-methyltransferase activity