

Rabbit PRMT1 Polyclonal Antibody | anti-PRMT1 antibody

PRMT1 Antibody

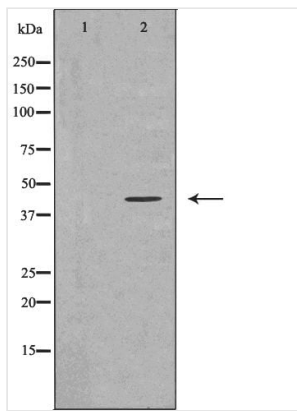
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA325981	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

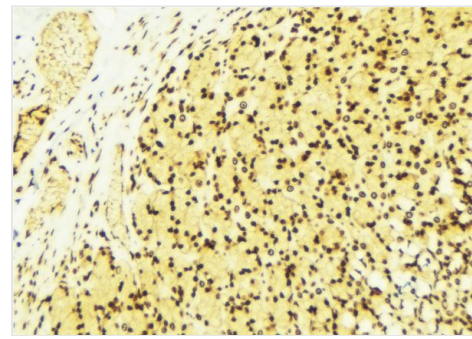
PRMT1; Polyclonal Antibody; PRMT1 Antibody; ANM 1; ANM1; ANM1_HUMAN; HCP 1; HCP1; Heterogeneous nuclear ribonucleoprotein methyltransferase 1 like 2; Heterogeneous nuclear ribonucleoproteins methyltransferase like 2; Heterogeneous nuclear ribonucleoproteins methyltransferase like2; Histone-arginine N-methyltransferase PRMT1; HMT 2; HMT1 (hnRNP methyltransferase S. cerevisiae) like 2; HMT1 hnRNP methyltransferase; HMT1 hnRNP methyltransferase like 2 (S. cerevisiae); HMT1 hnRNP methyltransferase like 2; HMT2; HRMT1 L2; HRMT1L 2; HRMT1L2; Human mRNA for suppressor for yeast mutant; Human mRNA for suppressor for yeast mutant complete cds; Interferon receptor 1 bound protein 4; Interferon receptor 1 bound protein4; Interferon receptor 1-bound protein 4; Interferon receptor 1bound protein 4; IR1 B4; IR1B 4; IR1B4; Mrmt 1; Mrmt1; PRMT 1; Protein arginine methyltransferase 1; Protein arginine N methyltransferase 1; Protein arginine N methyltransferase1; Protein arginine N-methyltransferase 1; R1B4; S. cerevisiae like 2; anti-PRMT1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	PRMT1 antibody detects endogenous levels of total PRMT1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	285
Applicable Applications for anti-PRMT1 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human PRMT1
Subcellular Location	Nucleus. Cytoplasm > Cytosol.
Tissue Specificity	Widely expressed (PubMed:11097842). Expressed strongly in colorectal cancer cells (at protein level) (PubMed:28040436). Expressed strongly in colorectal cancer tissues compared to wild-type colon samples (at protein level) (PubMed:28040436). Expressed strongly in colorectal cancer tissues compared to wild-type colon samples (PubMed:28040436).
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (100%), Zebrafish (86%), Bovine (100%), Horse (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (86%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

**WB (Western Blot)**

Western blot analysis of Hela using PRMT1 antibody. The lane on the left is treated with the antigen-specific peptide.

**IHC (Immunohistochemistry)**

AAA325981 at 1/100 staining Human gastric tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-PRMT1 antibody

Description: Protein arginine N-methyltransferase 1 (PRMT1) is a member of the protein arginine N-methyltransferase (PRMT) family of proteins that catalyze the transfer of a methyl group from S-adenosylmethionine (AdoMet) to a guanidine nitrogen of arginine (1). Though all PRMT proteins catalyze the formation of mono-methyl arginine, Type I PRMTs (PRMT1, 3, 4, and 6) add an additional methyl group to produce an asymmetric di-methyl arginine while Type II PRMTs (PRMT 5 and 7) produce symmetric di-methyl arginine (1). Mono-methyl arginine, but not di-methyl arginine, can be converted to citrulline through deimination catalyzed by enzymes such as PADI4 (2). Most PRMTs, including PRMT1, methylate arginine residues found within glycine-arginine rich (GAR) protein domains, such as RGG, RG, and RXR repeats (1). However, PRMT4/CARM1 and PRMT5 methylate arginine residues within PGM (proline-, glycine-, methionine-rich) motifs (3). PRMT1 methylates Arg3 of histone H4 and cooperates synergistically with p300/CBP to enhance transcriptional activation by nuclear receptor proteins (4-6). In addition, PRMT1 methylates many non-histone proteins, including the orphan nuclear receptor HNF4 (6), components of the heterogeneous nuclear ribonucleoprotein (hnRNP) particle (7), the RNA binding protein Sam68 (8), interleukin enhancer-binding factor 3 (ILF3) (9) and interferon-alpha and beta receptors (10). These interactions suggest additional functions in transcriptional regulation, mRNA processing and signal transduction. Alternative mRNA splicing produces three enzymatically active PMRT1 isoforms that differ in their amino-terminal regions (11). PRMT1 is localized to the nucleus or cytoplasm, depending on cell type (12, 13) and appears in many distinct protein complexes. ILF3, TIS21 and the leukemia-associated BTG1 proteins bind PRMT1 to regulate its methyltransferase activity (9, 14).

Function: Arginine methyltransferase that methylates (mono and asymmetric dimethylation) the guanidino nitrogens of arginyl residues present in proteins such as ESR1, histone H2, H3 and H4, PIAS1, HNRNPA1, HNRNPD, NFATC2IP, SUPT5H, TAF15, EWS, HABP4 and SERBP1 (PubMed:16879614). Constitutes the main enzyme that mediates monomethylation and asymmetric dimethylation of histone H4 'Arg-4' (H4R3me1 and H4R3me2a, respectively), a specific tag for epigenetic transcriptional activation. Together with dimethylated PIAS1, represses STAT1 transcriptional activity, in the late phase of interferon gamma (IFN-gamma) signaling. May be involved in the regulation of TAF15 transcriptional activity, act as an activator of estrogen receptor (ER)-mediated transactivation, play a key role in neurite outgrowth and act as a negative regulator of megakaryocytic differentiation, by modulating p38 MAPK pathway. Methylates FOXO1 and retains it in the nucleus increasing its transcriptional activity. Methylates CHTOP and this methylation is critical for its 5-hydroxymethylcytosine (5hmC)-binding activity (PubMed:25284789). Methylates H4R3 in genes involved in glioblastomagenesis in a CHTOP-and/or TET1-dependent manner (PubMed:25284789).

Subunit Structure: Homodimer (PubMed:16879614). Heterodimer with PRMT8. Individual homodimers can associate to form a homohexamer. Interacts with BTG1, BTG2, NFATC2IP and IFNAR1 (By similarity). Interacts with and methylates CHTOP, thereby enabling the interaction of CHTOP with the 5FMC complex (PubMed:25284789). Interacts with ILF3 and SUPT5H. Interacts with and methylates FOXO1, leading to the nuclear retention of FOXO1 and the stimulation of FOXO1 transcriptional activity. Methylation of FOXO1 is increased upon oxidative stress. Interacts with and probably methylates ATXN2L (PubMed:25748791). Component of the methylosome, a 20S complex containing at least CLNS1A/pICln, PRMT5/SKB1, WDR77/MEP50, PRMT1 and ERH (PubMed:25284789). Interacts with DHX9 (via RGG region) (PubMed:15084609). Interacts (via N-terminus) with HABP4 (PubMed:16879614).

Similarity: Belongs to the class I-like SAM-binding methyltransferase superfamily. Protein arginine N-methyltransferase family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	333360913
NCBI GeneID	3276
NCBI Accession #	NP_001193971.1
NCBI GenBank Nucleotide #	NM_001207042.2
UniProt Accession #	Q99873; Q15529; Q2VP93; Q6LEU5; Q8WUW5; Q99872; Q99874; A0A087X1W2; B4E3C3; G5E9B6; H7C2I1
Molecular Weight	Observed: 42 kDa Predicted: 43 kDa
NCBI Official Full Name	protein arginine N-methyltransferase 1 isoform 4
NCBI Official Synonym Full Names	protein arginine methyltransferase 1
NCBI Official Symbol	PRMT1
NCBI Official Synonym Symbols	ANM1; HCP1; IR1B4; HRMT1L2
NCBI Protein Information	protein arginine N-methyltransferase 1
UniProt Protein Name	Protein arginine N-methyltransferase 1
UniProt Gene Name	PRMT1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/prmt1-antibody-immunohistochemistry-western-blot-elisa/325981>