

Rabbit PRMT5 Polyclonal Antibody | anti-PRMT5 antibody

PRMT5 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326208	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

PRMT5; Polyclonal Antibody; PRMT5 Antibody; 72 kDa ICLN binding protein; 72 kDa ICLN-binding protein; ANM5_HUMAN; Histone synthetic lethal 7; S. cerevisiae; homolog of; Histone-arginine N-methyltransferase PRMT5; HMT1 hnRNP methyltransferase like 5; HOMOLOG OF; SKB1; HRMT1L5; IBP72; Jak-binding protein 1; JBP 1; JBP1; PRMT 5; Protein arginine methyltransferase 5; Protein arginine N methyltransferase 5; Protein arginine N methyltransferase 5 N terminally processed; Protein arginine N-methyltransferase 5; S. POMBE; S. POMBE HOMOLOG OF; SHK1 KINASE BINDING PROTEIN 1; Shk1 kinase binding protein 1 homolog; Shk1 kinase-binding protein 1 homolog; Shk1 kinase/binding protein 1; S. pombe; SKB 1; SKB1 homolog; SKB1: SKB1 homolog (S. pombe); SKB1Hs; anti-PRMT5 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	PRMT5 antibody detects endogenous levels of total PRMT5
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	620
Applicable Applications for anti-PRMT5 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthetic peptide of human PRMT5
Subcellular Location	Cytoplasm. Nucleus.
Tissue Specificity	Ubiquitous.
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Rabbit, Dog, Xenopus
Similarity	Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Xenopus (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IF (Immunofluorescence)

AAA326208 staining HeLa cells by ICC/IF. Cells were fixed with PFA and permeabilized in 0.1% saponin prior to blocking in 10% serum for 45 minutes at 37 degree C. The primary antibody was diluted 1/200 and incubated with the sample for 1 hour at 37 degree C. A Alexa Fluor 594 conjugated goat polyclonal to rabbit IgG (H+L), diluted 1/600 was used as secondary antibody.



WB (Western Blot)

Western blot analysis of NIH-3T3 cell lysate, using PRMT5 Antibody. The lane on the left is treated with the antigen-specific peptide.



WB (Western Blot)

Western blot analysis of extracts from rat brain, using PRMT5 Antibody. Lane 1 was treated with the antigen-specific peptide.



IHC (Immunohistochemistry)

AAA326208 at 1/100 staining Mouse lung 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-PRMT5 antibody	Description: Human Skb1Hs methyltransferase (also called JBP1), a homologue of yeast protein Skb1 and Hsl7p (1, 2), is composed of 637 amino acid residues and contains motifs conserved among protein methyltransferases. It methylates histones and MBP in vitro (2). Yeast Hsl7p is involved in regulation of cell cycle progression through G2 by negatively regulating Swe1p, a protein tyrosine kinase that phosphorylates and inhibits Cdc28p (3). An Hsl7p homologue, Skb1, was identified in fission yeast by virtue of its yeast two-hybrid interaction with Shk1p, a p21 (cdc42p/Rac) activated kinase (PAK) (4). Both proteins belong to the protein methyltransferase superfamily (5). Interestingly, human Skb1Hs methyltransferase was shown to interact with Jak kinases. This suggests the possibility that the Skb1Hs methyltransferase could link Jak to a PAK signaling pathway in mammalian cells. Function: Arginine methyltransferase that can both catalyze the formation of omega-N monomethylarginine (MMA) and symmetrical dimethylarginine (sDMA), with a preference for the formation of MMA (PubMed:10531356, PubMed:11152681, PubMed:11747828, PubMed:12411503, PubMed:15737618, PubMed:17709427, PubMed:20159986, PubMed:20810653, PubMed:21258366, PubMed:21917714, PubMed:22269951, PubMed:21081503). Specifically mediates the symmetrical dimethylation of arginine residues in the small nuclear ribonucleoproteins Sm D1 (SNRPD1) and Sm D3 (SNRPD3); such methylation being required for the assembly and biogenesis of snRNP core particles (PubMed:12411503, PubMed:11747828, PubMed:17709427). Methylates SUPT5H and may regulate its transcriptional elongation properties (PubMed:12718890). Mono- and dimethylates arginine residues of myelin basic protein (MBP) in vitro. May play a role in cytokine-activated transduction pathways. Negatively regulates cyclin E1 promoter activity and cellular proliferation. Methylates histone H2A and H4 'Arg-3' during germ cell development. Methylates histone H3 'Arg-8', which may repress transcription. Methylates the Piwi proteins (PIWIL1, PIWIL2 and PIWIL4), methylation of Piwi proteins being required for the interaction with Tudor domain-containing proteins and subsequent localization to the meiotic nuage (By similarity). Methylates RPS10. Attenuates EGF signaling through the MAPK1/MAPK3 pathway acting at 2 levels. First, monomethylates EGFR; this enhances EGFR 'Tyr-1197' phosphorylation and PTPN6 recruitment, eventually leading to reduced SOS1 phosphorylation (PubMed:21917714, PubMed:21258366). Second, methylates RAF1 and probably BRAF, hence destabilizing these 2 signaling proteins and reducing their catalytic activity (PubMed:21917714). Required for induction of E-selectin and VCAM-1, on the endothelial cells surface at sites of inflammation. Methylates HOXA9 (PubMed:22269951). Methylates and regulates SRGAP2 which is involved in cell migration and differentiation (PubMed:20810653). Acts as a transcriptional corepressor in CRY1-mediated repression of the core circadian component PER1 by regulating the H4R3 dimethylation at the PER1 promoter (By similarity). Methylates GM130/GOLGA2, regulating Golgi ribbon formation (PubMed:20421892). Methylates H4R3 in genes involved in glioblastomagenesis in a CHTOP-and/or TET1-dependent manner (PubMed:25284789). Symmetrically methylates POLR2A, a modification that allows the recruitment to POLR2A of proteins including SMN1/SMN2 and SETX. This is required for resolving RNA-DNA hybrids created by RNA polymerase II, that form R-loop in transcription terminal regions, an important step in proper transcription termination (PubMed:26700805). Along with LYAR, binds the promoter of gamma-globin HBG1/HBG2 and represses its expression (PubMed:25092918). Symmetrically methylates NCL (PubMed:21081503). Subunit Structure: Forms, at least, homodimers and homotetramers. Component of the methylosome complex, composed of PRMT5, WDR77 and CLNS1A (PubMed:21081503). Found in a complex composed of PRMT5, WDR77 and RIOK1 (PubMed:21081503). RIOK1 and CLNS1A associate with PRMT5 in a mutually exclusive fashion, which allows the recruitment of distinct methylation substrates, such as nucleolin/NCL and Sm proteins, respectively (PubMed:21081503). Interacts with PRDM1 (By similarity). Identified in a complex composed of methylosome and PRMT1 and ERH (PubMed:25284789). Interacts with EGFR; methylates EGFR and stimulates EGFR-mediated ERK activation. Interacts with HOXA9. Interacts with SRGAP2. Found in a complex with COPRS, RUNX1 AND CBF. Interacts with CHTOP; the interaction symmetrically methylates CHTOP, but seems to require the presence of PRMT1 (PubMed:25284789). Interacts with EPB41L3; this modulates methylation of target proteins. Component of a high molecular weight E2F-pocket protein complex, CERC (cyclin E1 repressor complex). Associates with SWI/SNF remodeling complexes containing SMARCA2 and SMARCA4. Interacts with JAK2, SSTR1, SUPT5H, BRAF and with active RAF1. Interacts with LSM11, PRMT7 and SNRPD3 (PubMed:17709427, PubMed:16087681). Interacts with COPRS; promoting its recruitment on histone H4. Interacts with CLNS1A/piCln (PubMed:21081503, PubMed:9556550). Identified in a complex with CLNS1A/piCln and Sm proteins. Interacts with RPS10 (PubMed:20159986). Interacts with WDR77. Interacts with IWS1. Interacts with CRY1. Interacts with POLR2A (PubMed:26700805). Interacts with SMN1/SMN2 (PubMed:26700805). Interacts with LYAR; this interaction is direct (PubMed:25092918). Similarity: Belongs to the class I-like SAM-binding methyltransferase superfamily. Protein arginine N-methyltransferase family.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	88900507
NCBI GeneID	10419

NCBI Accession #	NP_001034708.1
NCBI GenBank Nucleotide #	NM_001039619.2
UniProt Accession #	O14744; Q6IBR1; Q9UKH1; A8MTP3; A8MZ91; B4DX49; B4DY30; B5BU10; D3DS33; E2QRE7
Molecular Weight	Observed: 73 kDa Predicted: 73 kDa
NCBI Official Full Name	protein arginine N-methyltransferase 5 isoform b
NCBI Official Synonym Full Names	protein arginine methyltransferase 5
NCBI Official Symbol	PRMT5
NCBI Official Synonym Symbols	JBP1; SKB1; IBP72; SKB1Hs; HRMT1L5
NCBI Protein Information	protein arginine N-methyltransferase 5
UniProt Protein Name	Protein arginine N-methyltransferase 5
UniProt Gene Name	PRMT5
UniProt Synonym Gene Names	HRMT1L5; IBP72; JBP1; SKB1; SKB1 homolog; SKB1Hs

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://stage.aaabiotech.com/polyclonal/prmt5-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/326208>