

Rabbit PRMT5 Monoclonal Antibody | anti-PRMT5 antibody

Anti-PRMT5 Rabbit Monoclonal Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA46971	Rabbit	Human, Mouse, Rat	Western Blot, Immunocytochemistry, Immunohistochemistry, Immunofluorescence, Flow Cytometry, Functional Assay

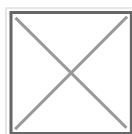
PRODUCT SYNONYMS

PRMT5; Monoclonal Antibody; Anti-PRMT5 Rabbit Monoclonal Antibody; Protein arginine N-methyltransferase 5; 2.1.1.320; 72 kDa ICln-binding protein; Histone-arginine N-methyltransferase PRMT5; Jak-binding protein 1; Shk1 kinase-binding protein 1 homolog; SKB1 homolog; SKB1Hs; N-terminally processed; HRMT1L5; IBP72; JBP1; SKB1; anti-PRMT5 antibody

PRODUCT SPECIFICATIONS

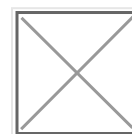
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal
Purity/Purification	Affinity-chromatography
Form/Format	Liquid
Sequence Length	576
Applicable Applications for anti-PRMT5 antibody	WB (Western Blot), ICC (Immunocytochemistry), IHC (Immunohistochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry)
Immunogen	A synthesized peptide derived from human PRMT5
Subcellular Localization	Cytoplasm. Nucleus. Golgi apparatus.
Tissue Specificity	Ubiquitous.
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



WB (Western Blot)

Western blot analysis of PRMT5 expression in HeLa cell lysate (AAA46971). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-PRMT5 monoclonal antibody overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for PRMT5



IHC (Immunohistochemistry)

Immunohistochemical analysis of paraffin-embedded human testis, using PRMT5 Antibody (AAA46971). PRMT5 was detected in paraffin-embedded tissue section. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-PRMT5 Antibody (AAA46971) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

ADDITIONAL INFORMATION

Related Product Information for anti-PRMT5 antibody	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). 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).
Product Categories/Family for anti-PRMT5 antibody	Epigenetics and Nuclear Signaling; Chromatin Modifying Enzymes; methylation; Epigenetics and Nuclear Signaling; arginine methylation

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	72684 MW
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.