



Rabbit Anti-PRMT5 antibody

SL6992R

Product Name:	PRMT5
Chinese Name:	组蛋白精氨酸甲基转移酶5抗体
Alias:	72 kDa ICLN binding protein; 72 kDa ICLN-binding protein; ANM5_HUMAN; Histone-arginine N-methyltransferase PRMT5; HMT1 hnRNP methyltransferase like 5; HOMOLOG OF; SKB1; HRMT1L5; IBP72; Jak-binding protein 1; JBP 1; JBP1; PRMT 5; PRMT5; Protein arginine methyltransferase 5; Protein arginine N methyltransferase 5; Protein arginine N-methyltransferase 5; S. POMBE; S. POMBE HOMOLOG OF; SKB1; SHK1 KINASE BINDING PROTEIN 1; Shk1 kinase binding protein 1 homolog; SHK1 KINASE-BINDING PROTEIN 1; Shk1 kinase-binding protein 1 homolog; SKB 1; SKB1; SKB1 homolog; SKB1: SKB1 homolog (S. pombe); SKB1Hs.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:50-200 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	70kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human PRMT5:201-300/637
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed

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. 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. Methylates SUPT5H. Mono- and dimethylates arginine residues of myelin basic protein (MBP) in vitro. Plays a role in the assembly of snRNP core particles. May play a role in cytokine-activated transduction pathways. Negatively regulates cyclin E1 promoter activity and cellular proliferation. May regulate the SUPT5H transcriptional elongation properties. May be part of a pathway that is connected to a chloride current, possibly through cytoskeletal rearrangement. 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. Methylates RPS10.

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. 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. Methylates SUPT5H. Mono- and dimethylates arginine residues of myelin basic protein (MBP) in vitro. Plays a role in the assembly of snRNP core particles. May play a role in cytokine-activated transduction pathways. Negatively regulates cyclin E1 promoter activity and cellular proliferation. May regulate the SUPT5H transcriptional elongation properties. May be part of a pathway that is connected to a chloride current, possibly through cytoskeletal rearrangement. 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. 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. Second, methylates RAF1 and probably BRAF, hence destabilizing these 2 signaling proteins and reducing their catalytic activity. Required for induction of E-selectin and VCAM-1, on the endothelial cells surface at sites of inflammation. Methylates HOXA9.

Subunit:

Forms, at least, homodimers and homotetramers. Interacts with PRDM1. Component of the methylosome, a 20S complex containing at least pICLn, PRMT1/SKB1 and MEP50. Component of a high molecular weight E2F-pocket protein complex, CERC (cyclin E1 repressor complex). Also interacts with Sm proteins, JAK2, SSTR1 and SUPT5H. Associates with SWI/SNF remodeling complexes containing SMARCA2 and

Product Detail:

SMARCA4. Interacts with LSM11, PRMT7 and SNRPD3. Interacts with COPR5/C17orf79; promoting its recruitment on histone H4. Interacts with RPS10. Interacts with EGFR; methylates EGFR and stimulates EGFR-mediated ERK activation. Interacts with BRAF and with active RAF1. Interacts with HOXA9.

Subcellular Location:

Cytoplasm. Nucleus.

Tissue Specificity:

Ubiquitous.

Post-translational modifications:

Disulfide bonds and non-covalent association mediate homooligomers formation.

Similarity:

Belongs to the protein arginine N-methyltransferase family.

SWISS:

O14744

Gene ID:

10419

Database links:

[Entrez Gene: 10419](#)Human

[Entrez Gene: 27374](#)Mouse

[Entrez Gene: 364382](#)Rat

[Omim: 604045](#)Human

[SwissProt: O14744](#)Human

[SwissProt: Q8CIG8](#)Mouse

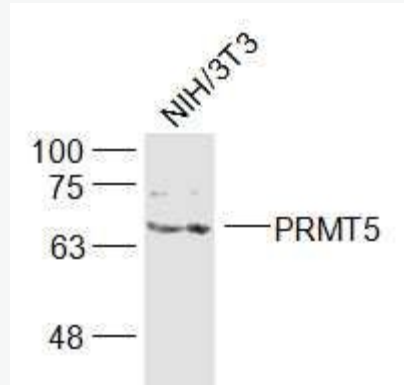
[Unigene: 367854](#)Human

[Unigene: 196585](#)Mouse

[Unigene: 101808](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.



Sample:

NIH/3T3(Mouse) Cell Lysate at 30 ug

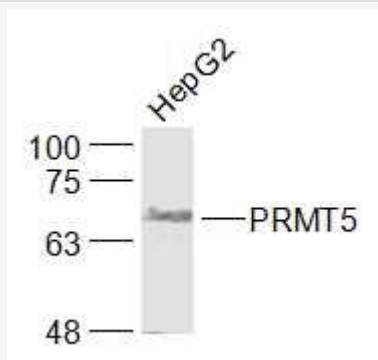
Primary: Anti-PRMT5 (SL6992R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 70 kD

Observed band size: 67 kD

Picture:



Sample:

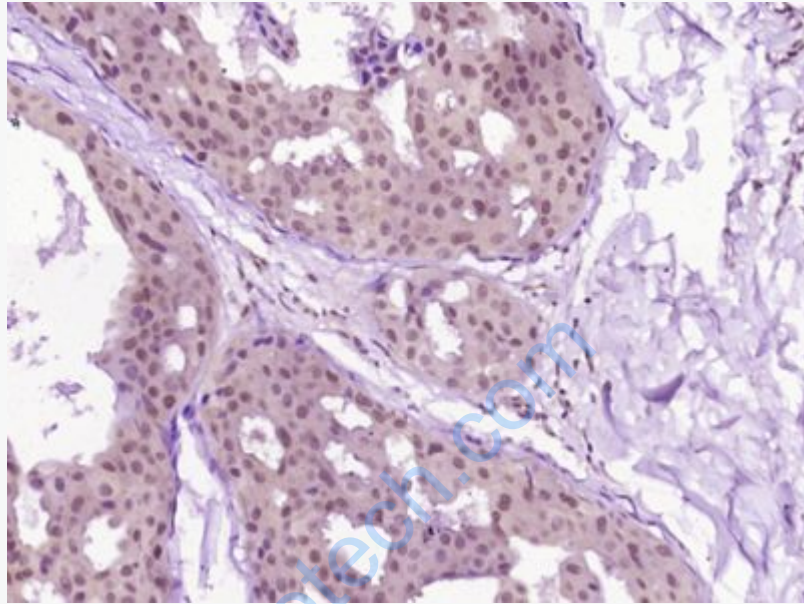
HepG2(Human) Cell Lysate at 30 ug

Primary: Anti-PRMT5 (SL6992R) at 1/1000 dilution

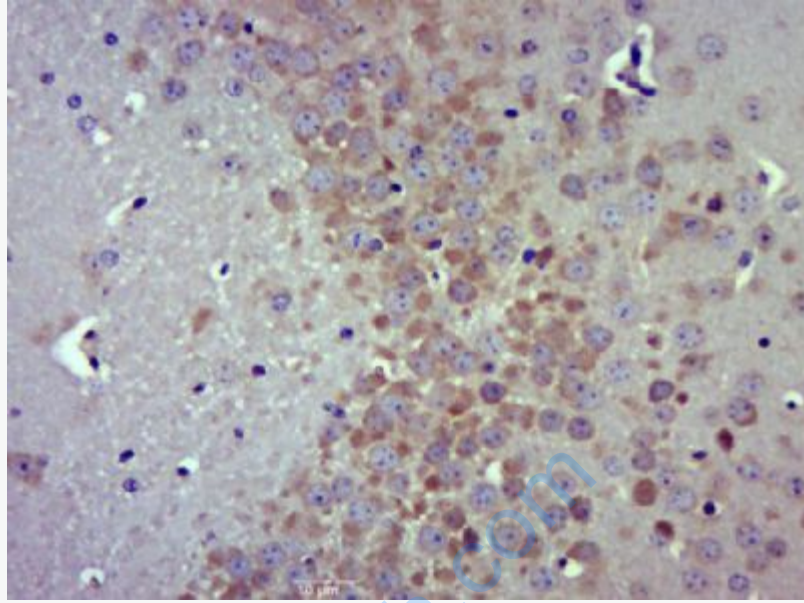
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

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Paraformaldehyde-fixed, paraffin embedded (Human breast carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PRMT5) Polyclonal Antibody, Unconjugated (SL6992R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PRMT5) Polyclonal Antibody, Unconjugated (SL6992R) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.