

ARG66590 anti-PRMT5 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes PRMT5
Tested Reactivity	Hu, Ms, Rat
Tested Application	ChIP, ICC/IF, IHC-P, IP, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	PRMT5
Species	Human
Immunogen	KLH-conjugated synthetic peptide of Human PRMT5.
Conjugation	Un-conjugated
Alternate Names	IBP72; Protein arginine N-methyltransferase 5; EC 2.1.1.125; EC 2.1.1.-; Shk1 kinase-binding protein 1 homolog; HRMT1L5; 72 kDa ICln-binding protein; Histone-arginine N-methyltransferase PRMT5; Jak-binding protein 1; SKB1; SKB1Hs; JBP1; SKB1 homolog

Application Instructions

Application table	Application	Dilution
	ChIP	1:20 - 1:100
	ICC/IF	1:50 - 1:200
	IHC-P	1:50 - 1:200
	IP	1:50 - 1:200
	WB	1:500 - 1:2000

Application Note IHC-P: Antigen Retrieval: Heat mediation was performed in Sodium citrate buffer (pH 6.0).
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Observed Size 73 kDa

Properties

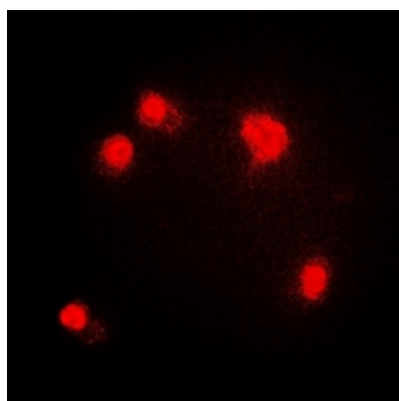
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.42% Potassium phosphate (pH 7.3), 0.87% NaCl, 0.01% Sodium azide and 30% Glycerol.
Preservative	0.01% Sodium azide
Stabilizer	30% Glycerol

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

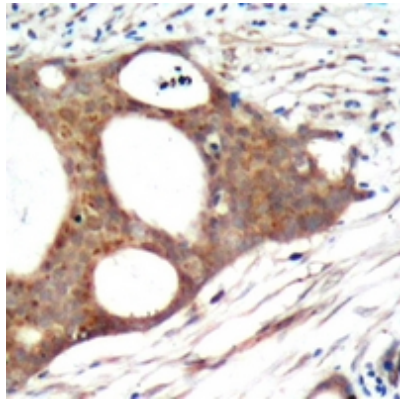
Gene Symbol	PRMT5
Gene Full Name	protein arginine methyltransferase 5
Background	This gene encodes an enzyme that belongs to the methyltransferase family. The encoded protein catalyzes the transfer of methyl groups to the amino acid arginine, in target proteins that include histones, transcriptional elongation factors and the tumor suppressor p53. This gene plays a role in several cellular processes, including transcriptional regulation, and the assembly of small nuclear ribonucleoproteins. A pseudogene of this gene has been defined on chromosome 4. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Sep 2015]
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. Methylates and regulates SRGAP2 which is involved in cell migration and differentiation. Acts as a transcriptional corepressor in CRY1-mediated repression of the core circadian component PER1 by regulating the H4R3 dimethylation at the PER1 promoter. [UniProt]
Calculated Mw	73 kDa
Cellular Localization	Cytoplasm. Nucleus. Golgi apparatus. [UniProt]

Images



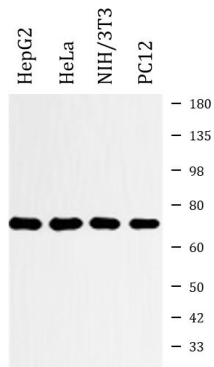
ARG66590 anti-PRMT5 antibody ICC/IF image

Immunofluorescence: Formalin-fixed HepG2 cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were stained with ARG66590 anti-PRMT5 antibody in 3% BSA-PBS and incubated overnight at 4°C.



ARG66590 anti-PRMT5 antibody IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Human breast cancer tissue. Antigen Retrieval: Heat mediation was performed in Sodium citrate buffer (pH 6.0). The section was then stained with ARG66590 anti-PRMT5 antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



ARG66590 anti-PRMT5 antibody WB image

Western blot: HepG2, HeLa, NIH/3T3 and PC12 whole cell lysates stained with ARG66590 anti-PRMT5 antibody.