

Immunotag™ PRMT5 Antibody

Antibody Specification	
Catalog No.	ITA6520
Product Description	Immunotag™ PRMT5 Antibody
Size	100 µg, 200 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	PRMT5
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,IHC,IF/ICC,ELISA
Recommended Dilution	WB 1:500-1:2000 IHC 1:50-1:200 IF 1:100-500 ELISA(peptide) 1:20000-1:40000
Concentration	1 mg/ml
Reactive Species	Human,Mouse,Rat
Host Species	Rabbit
Immunogen	A synthetic peptideof human PRMT5
Specificity	PRMT5 Antibody detects endogenous levels of total PRMT5
Purification	The antiserum was purified by peptide affinity chromatography.
Form	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.Store at -20 °C.Stable for 12 months from date of receipt
Gene Name	PRMT5
Accession No.	O14744

Antibody Specification

Alternate Names	72 kDa ICln binding protein; 72 kDa ICln-binding protein; ANM5_HUMAN; Histone synthetic lethal 7, <i>S. cerevisiae</i> , 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; PRMT5; Protein arginine methyltransferase 5; Protein arginine N methyltransferase 5; Protein arginine N methyltransferase 5 N terminally processed; Protein arginine N-methyltransferase 5; <i>S. POMBE</i> ; <i>S. POMBE</i> HOMOLOG OF; SKB1; SHK1 KINASE BINDING PROTEIN 1; Shk1 kinase binding protein 1 homolog; Shk1 kinase-binding protein 1 homolog; Shk1 kinase/binding protein 1, <i>S. pombe</i> , homolog of; SKB 1; SKB1; SKB1 homolog; SKB1: SKB1 homolog (<i>S. pombe</i>); SKB1Hs;
Description	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).
Cell Pathway/ Category	Primary Polyclonal Antibody
Protein MW	73kDa

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Usage

For Research Use Only! Not for diagnostic or therapeutic procedures.