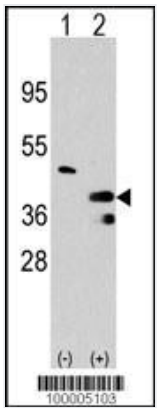
# PRMT1 Antibody – Rabbit Polyclonal

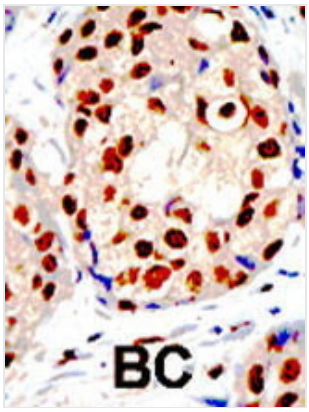
## PRODUCT OVERVIEW

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| **Product Name** | PRMT1, Polyclonal Antibody |
| **Full Product Name** | PRMT1, CT (Protein Arginine N-Methyltransferase 1, Interferon Receptor 1-bound Protein 4, HMT2, HRMT1L2, IR1B4) |
| **Product Gene Name** | anti-PRMT1 antibody |
| **Product Synonym Names** | Anti -PRMT1, CT (Protein Arginine N-Methyltransferase 1, Interferon Receptor 1-bound Protein 4, HMT2, HRMT1L2, IR1B4) |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Host** | Rabbit |
| **Species Reactivity** | Human |
| **Form/Format** | Supplied as a liquid in PBS, 0.09% sodium azide. |
| **Purity/Purification** | Affinity Purified<br>Purified by Protein G affinity chromatography. |
| **Specificity** | Recognizes human PRMT1. |
| **Preparation and Storage** | May be stored at 4 degree C for short-term only. Aliquot to avoid repeated freezing and thawing. Store at -20 degree C. Aliquots are stable for at least 12 months. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. |
| **Molecular Weight** | 37,557 Da |
| **Chromosome Location** | Chromosome: 19; NC_000019.9 (50180496..50191704). Location: 19q13.3 |
| **3D Structure** | ModBase 3D Structure for Q5U8W9 |
| **Immunogen** | Synthetic peptide selected from the C-terminal region of human PRMT1 (KLH). |
| **Product Categories/Family for anti-PRMT1 antibody** | Antibodies; Abs to Enzymes; Methyltransferase |
| **Applications Tested/Suitable for anti-PRMT1 antibody** | ELISA (EL/EIA), Western Blot (WB), Immunohistochemistry (IHC) |
| **Application Notes for anti-PRMT1 antibody** | Suitable for use in ELISA, Western Blot, and Immunohistochemistry.<br>Dilution: ELISA: 1:1,000<br>Western Blot: 1:50-1:100<br>Immunohistochemistry: 1:50-1:100 |
| **Related Product Information for anti-PRMT1 antibody** | Arginine methylation is an irreversible post translational modification which has only recently been linked to protein activity. At least three types of PRMT enzymes have been identified in mammalian cells. These enzymes have been shown to have essential regulatory functions by methylation of key proteins in several fundamental areas. These protein include nuclear proteins, IL enhancer binding factor, nuclear factors, cell cycle proteins, signal transduction proteins, apoptosis proteins, and viral proteins. The mammalian PRMT family currently consists of 7 members that share two large domains of homology. Outside of these domains, epitopes were identified and antibodies against all 7 PRMT members have been developed. |
| **Other Notes** | Small volumes of anti-PRMT1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |

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| **Searchable Terms for PRMT1 purchase** | MBS624622 is an antibody targeting PRMT1. Also known as PRMT1, CT (Protein Arginine N-Methyltransferase 1, Interferon Receptor 1-bound Protein 4, HMT2, HRMT1L2, IR1B4). Reactive in Human. Host: Rabbit. |




**Western Blot (WB) of anti-PRMT1 antibody**
Western blot analysis of PRMT1 (arrow) using rabbit polyclonal PRMT1 Antibody (C-term). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the PRMT1 gene (Lane 2).




**Immunohistochemistry (IHC) of anti-PRMT1 antibody**
Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PRMT1. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 333360913 |
| **NCBI GeneID** | 3276 |
| **NCBI Accession #** | NP_001193971.1 |
| **UniProt Primary Accession #** | Q5U8W9 |
| **UniProt Related Accession #** | Q5U8W9; Q8WUW5; Q99873 |
| **GenBank Nucleotide #** | NM_001207042.1 |
| **NCBI Official Full Name** | protein arginine N-methyltransferase 1 isoform 4 |
| **NCBI Official Synonym Full Names** | protein arginine methyltransferase 1 |
| **NCBI Official Symbol** | PRMT1 |
| **NCBI Official Synonym Symbols** | ANM1; HCP1; IR1B4; HRMT1L2 |
| **UniProt Protein Name** | Protein arginine methyltransferase 1 isoform 4 |
| **Protein Family** | Probable protein arginine N-methyltransferase |
| **UniProt Gene Name** | HRMT1L2 |
| **UniProt Entry Name** | Q5U8W9_HUMAN |
| **NCBI Protein Information** | protein arginine N-methyltransferase 1; OTTHUMP00000236172; OTTHUMP00000236176; OTTHUMP00000236178; OTTHUMP00000236179; HMT1 hnRNP methyltransferase-like 2; interferon receptor 1-bound protein 4; histone-arginine N-methyltransferase PRMT1; HMT1 (hnRNP methyltransferase, S. cerevisiae)-like 2 |
| **NCBI Summary for PRMT1** | The PRMT1 gene encodes a protein arginine methyltransferase that functions as a histone methyltransferase specific for H4 (see MIM 602822).[supplied by OMIM] |

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| **UniProt Comments for PRMT1** | PRMT1: Arginine methyltransferase that methylates (mono and asymmetric dimethylation) the guanidino nitrogens of arginyl residues present in proteins such as ESR1, histone H2, H3 and H4, PIAS1, HNRNPA1, HNRNPD, NFATC2IP, SUPT5H, TAF15 and EWS. Constitutes the main enzyme that mediates monomethylation and asymmetric dimethylation of histone H4 'Arg-4' (H4R3me1 and H4R3me2a, respectively), a specific tag for epigenetic transcriptional activation. Together with dimethylated PIAS1, represses STAT1 transcriptional activity, in the late phase of interferon gamma (IFN-gamma) signaling. May be involved in the regulation of TAF15 transcriptional activity, act as an activator of estrogen receptor (ER)-mediated transactivation, play a key role in neurite outgrowth and act as a negative regulator of megakaryocytic differentiation, by modulating p38 MAPK pathway. Homodimer and heterodimer with PRMT8. The dimer can then associate to form a homohexamer. Interacts with ILF3, BTG1, BTG2, SUPT5H and interferon-alpha/beta receptor 1. Interacts with NFATC2IP. Widely expressed. By BTG1, BTG2 and ILF3. Belongs to the protein arginine N-methyltransferase family. 3 isoforms of the human protein are produced by alternative splicing.<br><br>Protein type: Methyltransferase; Methyltransferase, protein arginine; EC 2.1.1.125; Nuclear receptor co-regulator<br><br>Chromosomal Location of Human Ortholog: 19q13.3<br><br>Cellular Component: nucleoplasm; cytoplasm; nucleus; cytosol<br><br>Molecular Function: methyltransferase activity; protein-arginine omega-N asymmetric methyltransferase activity; histone methyltransferase activity; identical protein binding; protein binding; N-methyltransferase activity<br><br>Biological Process: histone methylation; peptidyl-arginine methylation; establishment and/or maintenance of chromatin architecture; cell surface receptor linked signal transduction; protein amino acid methylation; regulation of transcription, DNA-dependent; peptidyl-arginine methylation, to asymmetrical-dimethyl arginine; neurite development; negative regulation of megakaryocyte differentiation |
| **Research Articles on PRMT1** | **1.** methylation of Axin by PRMT1 may serve as a finely tuned regulation mechanism for Wnt/beta-catenin signaling. |
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