

Rabbit PRMT1 Polyclonal Antibody | anti-PRMT1 antibody

Anti-PRMT1 Antibody Picoband

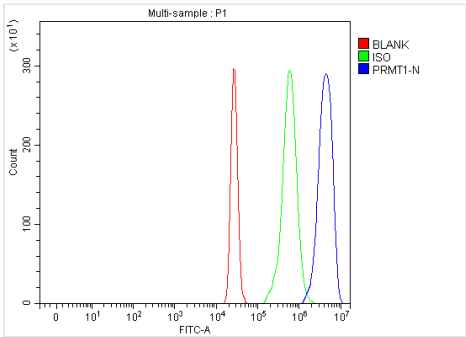
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA127059	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Immunofluorescence, Immunocytochemistry, Western Blot

PRODUCT SYNONYMS

PRMT1; Polyclonal Antibody; Anti-PRMT1 Antibody Picoband; protein arginine methyltransferase 1; Protein arginine N-methyltransferase 1; Histone-arginine N-methyltransferase PRMT1; Interferon receptor 1-bound protein 4; HMT2; HRMT1L2; IR1B4; anti-PRMT1 antibody

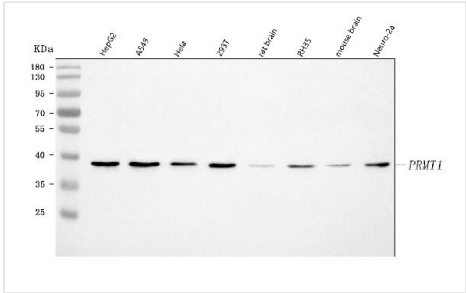
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Widely expressed (PubMed:11097842). Expressed strongly in colorectal cancer cells (at protein level)(PubMed:28040436). Expressed strongly in colorectal cancer tissues compared to wild-type colon samples (at protein level)(PubMed:28040436). Expressed strongly in colorectal cancer tissues compared to wild-type colon samples (PubMed:28040436).
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Applicable Applications for anti-PRMT1 antibody	ELISA, FCM/FACS (Flow Cytometry), IF (Immunofluorescence), ICC (Immunocytochemistry), WB (Western Blot)
Immunogen	E coli-derived human PRMT1 recombinant protein (Position: M1-H311).
Subcellular Localization	Apical cell membrane
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross-reactivity with other proteins.
Protein Function	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, ILF3, HNRNPA1, HNRNPD, NFATC2IP, SUPT5H, TAF15, EWS, HABP4 and SERBP1 (PubMed:10749851, PubMed:16879614, PubMed:26876602). 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. 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. Methylates RBM15, promoting ubiquitination and degradation of RBM15 (PubMed:26575292). Methylates FOXO1 and retains it in the nucleus increasing its transcriptional activity. Methylates CHTOP and this methylation is critical for its 5-hydroxymethylcytosine (5hmC)-binding activity (PubMed:25284789). Methylates H4R3 in genes involved in glioblastomagenesis in a CHTOP- and/or TET1-dependent manner (PubMed:25284789).
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.



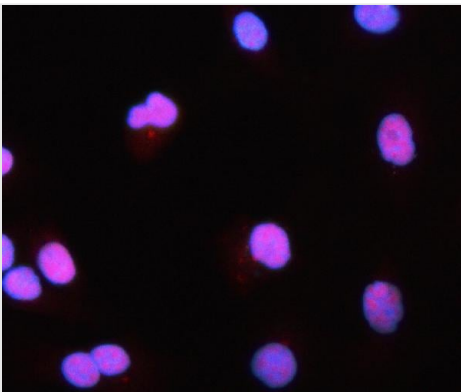
FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of U937 cells using anti-PRMT1 antibody (AAA127059).Overlay histogram showing U937 cells stained with AAA127059 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PRMT1 Antibody (AAA127059, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



WB (Western Blot)

Figure 1. Western blot analysis of PRMT1 using anti-PRMT1 antibody (AAA127059).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 30 ug of sample under reducing conditions.Lane 1: human HepG2 whole cell lysates,Lane 2: human A549 whole cell lysates,Lane 3: human Hela whole cell lysates,Lane 4: human 293T whole cell lysates,Lane 5: rat brain tissue lysates,Lane 6: rat RH35 whole cell lysates,Lane 7: mouse brain tissue lysates,Lane 8: mouse Neuro-2a whole cell lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-PRMT1 antigen affinity purified polyclonal antibody (#AAA127059) at 0.5ug/mL 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 1:5000 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 PRMT1 at approximately 39 kDa. The expected band size for PRMT1 is at 42 kDa.



IF (Immunofluorescence)

Figure 2. IF analysis of PRMT1 using anti-PRMT1 antibody (AAA127059).PRMT1 was detected in an immunocytochemical section of A549 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-PRMT1 Antibody (AAA127059) overnight at 4 degree C. DyLight594 Conjugated Goat Anti-Rabbit IgG (BA1142) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

ADDITIONAL INFORMATION

Related Product Information for anti-PRMT1 antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product Categories/Family for anti-PRMT1 antibody	Primary Antibodies; Cell Type Markers; Hematopoietic Progenitors; Immunology; Lymphoid; Myeloid; NK Cells; Stem Cells

References	1. Scott HS, Antonarakis SE, Lalioti MD, Rossier C, Silver PA, Henry MF (June 1998). "Identification and characterization of two putative human arginine methyltransferases (HRMT1L1 and HRMT1L2)". Genomics. 48 (3): 330-40. 2. Gerdin AK (2010). "The Sanger Mouse Genetics Programme: High throughput characterisation of knockout mice". Acta Ophthalmologica. 88: 925-7. 3. Skarnes WC, Rosen B, West AP, Koutsourakis M, Bushell W, Iyer V, Mujica AO, Thomas M, Harrow J, Cox T, Jackson D, Severin J, Biggs P, Fu J, Nefedov M, de Jong PJ, Stewart AF, Bradley A (2011). "A conditional knockout resource for the genome-wide study of mouse gene function". Nature. 474 (7351): 337-342.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	161789011
NCBI GeneID	3276
UniProt Accession #	Q99873; Q15529; Q2VP93; Q6LEU5; Q8WUW5; Q99872; Q99874; Q9NZ04; Q9NZ05; Q9NZ06; B4E3C3; G5E9B6
Molecular Weight	361
NCBI Official Full Name	Protein arginine N-methyltransferase 1
NCBI Official Synonym Full Names	protein arginine methyltransferase 1
NCBI Official Symbol	PRMT1
NCBI Official Synonym Symbols	ANM1; HCP1; IR1B4; HRMT1L2
NCBI Protein Information	protein arginine N-methyltransferase 1; interferon receptor 1-bound protein 4; histone-arginine N-methyltransferase PRMT1; HMT1 (hnRNP methyltransferase, S. cerevisiae)-like 2; heterogeneous nuclear ribonucleoprotein methyltransferase 1-like 2
UniProt Protein Name	Protein arginine N-methyltransferase 1
UniProt Gene Name	PRMT1
UniProt Synonym Gene Names	HMT2; HRMT1L2; IR1B4
UniProt Entry Name	ANM1_HUMAN

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.