

PRMT1 antibody - middle region
Rabbit Polyclonal Antibody
Catalog # AI11699

Specification

PRMT1 antibody - middle region - Product Information

Application	IHC, WB
Primary Accession	O99873
Other Accession	NM_001536 , NP_001527
Reactivity	Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Horse, Bovine, Dog
Predicted	Human, Mouse, Rabbit, Zebrafish, Pig, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	40kDa KDa

PRMT1 antibody - middle region - Additional Information

Gene ID 3276

Alias Symbol ANM1, HCP1, IR1B4, HRMT1L2

Other Names

Protein arginine N-methyltransferase 1, 2.1.1.-, Histone-arginine N-methyltransferase PRMT1, 2.1.1.125, Interferon receptor 1-bound protein 4, PRMT1, HMT2, HRMT1L2, IR1B4

Format

Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

Reconstitution & Storage

Add 100 ul of distilled water. Final anti-PRMT1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.

Precautions

PRMT1 antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

PRMT1 antibody - middle region - Protein Information

Name PRMT1 ([HGNC:5187](#))

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, FMR1, ILF3, HNRNPA1, HNRNPD, NFATC2IP, SUPT5H, TAF15, EWS, HABP4, SERBP1, RBM15, FOXO1, CHTOP, MAP3K5/ASK1, MICU1 and NPRL2 (PubMed: <http://www.uniprot.org/citations/10749851> target="_blank">10749851, PubMed: <http://www.uniprot.org/citations/15741314> target="_blank">15741314, PubMed: <http://www.uniprot.org/citations/16879614> target="_blank">16879614)

target="_blank">16879614, PubMed:18951090, PubMed:22095282, PubMed:25284789, PubMed:26575292, PubMed:26876602, PubMed:27642082, PubMed:30765518, PubMed:31257072, PubMed:38006878). 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 MRE11 and TP53BP1, promoting the DNA damage response (PubMed:15741314, PubMed:16294045, PubMed:29651020). Methylates FOXO1 and retains it in the nucleus increasing its transcriptional activity (PubMed:18951090). Methylates CHTOP and this methylation is critical for its 5-hydroxymethylcytosine (5hmC)-binding activity (PubMed:25284789). Methylates MAP3K5/ASK1 at 'Arg-78' and 'Arg-80' which promotes association of MAP3K5 with thioredoxin and negatively regulates MAP3K5 association with TRAF2, inhibiting MAP3K5 stimulation and MAP3K5-induced activation of JNK (PubMed:22095282). Methylates H4R3 in genes involved in glioblastomagenesis in a CHTOP- and/or TET1- dependent manner (PubMed:25284789). Plays a role in regulating alternative splicing in the heart (By similarity). Methylates NPRL2 at 'Arg-78' leading to inhibition of its GTPase activator activity and then the GATOR1 complex and consequently inducing timely mTORC1 activation under methionine-sufficient conditions (PubMed:38006878).

Cellular Location

Nucleus. Nucleus, nucleoplasm {ECO:0000250|UniProtKB:Q9JIF0}. Cytoplasm. Cytoplasm, cytosol {ECO:0000250|UniProtKB:Q9JIF0}. Lysosome membrane. Note=Mostly found in the cytoplasm Colocalizes with CHTOP within the nucleus. Low levels detected also in the chromatin fraction (By similarity). Upon methionine stimulation, localizes to the lysosome membrane in an NPRL2-dependent manner (PubMed:38006878). {ECO:0000250|UniProtKB:Q9JIF0, ECO:0000269|PubMed:38006878}

Tissue Location

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)

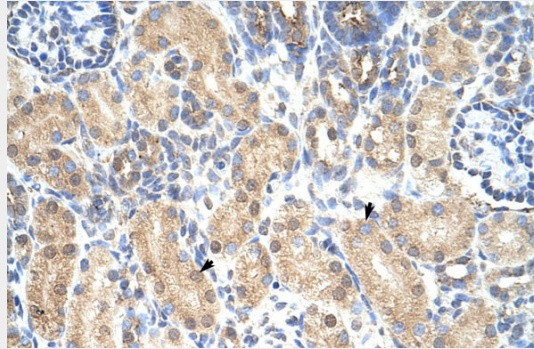
PRMT1 antibody - middle region - Protocols

Provided below are standard protocols that you may find useful for product applications.

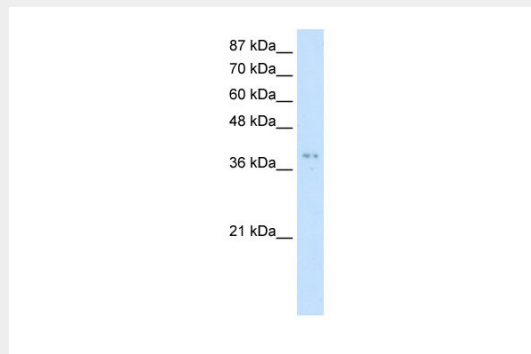
- [Western Blot](#)

- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

PRMT1 antibody - middle region - Images



Rabbit Anti-PRMT1 Antibody
Paraffin Embedded Tissue: Human Kidney
Cellular Data: Epithelial cells of renal tubule
Antibody Concentration: 4.0-8.0 µg/ml
Magnification: 400X



WB Suggested Anti-PRMT1 Antibody Titration: 5.0µg/ml
ELISA Titer: 1:1562500
Positive Control: Jurkat cell lysate

PRMT1 antibody - middle region - References

Adams, M.M., (2005) Cell Cycle 4 (12), 1854-1861
Reconstitution and Storage: For short term use, store at 2-8°C up to 1 week. For long term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.