

PRMT6 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52660

Specification

PRMT6 Antibody - Product Information

Application	WB, IHC, ICC
Primary Accession	O96LA8
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	42 KDa

PRMT6 Antibody - Additional Information

Gene ID 55170

Other Names

ANM6_HUMAN;Chromobox protein homolog 7;FLJ10559;FLJ51477;Heterogeneous nuclear ribonucleoprotein methyltransferase like protein 6;Heterogeneous nuclear ribonucleoprotein methyltransferase-like protein 6;Histone-arginine N-methyltransferase PRMT6;HMT1 hnRNP methyltransferase like 6.;HRMT1L6;OTTHUMP00000012633;PRMT 6;prmt6; Protein arginine methyltransferase 6;Protein arginine N methyltransferase 6;Protein arginine N-methyltransferase 6.

Dilution

WB~~1:1000
IHC~~1:100
ICC~~1:300

Format

Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.09% (W/V) sodium azide, 50%,glycerol

Storage

Store at -20 °C.Stable for 12 months from date of receipt

PRMT6 Antibody - Protein Information

Name PRMT6

Synonyms HRMT1L6

Function

Arginine methyltransferase that can catalyze the formation of both omega-N monomethylarginine (MMA) and asymmetrical dimethylarginine (aDMA), with a strong preference for the formation of aDMA (PubMed:<a href="http://www.uniprot.org/citations/17898714"

target="_blank">17898714, PubMed:18077460, PubMed:18079182, PubMed:19405910, PubMed:30420520). Preferentially methylates arginyl residues present in a glycine and arginine-rich domain and displays preference for monomethylated substrates (PubMed:17898714, PubMed:18077460, PubMed:18079182, PubMed:19405910). Specifically mediates the asymmetric dimethylation of histone H3 'Arg-2' to form H3R2me2a (PubMed:17898714, PubMed:18077460, PubMed:18079182). H3R2me2a represents a specific tag for epigenetic transcriptional repression and is mutually exclusive with methylation on histone H3 'Lys-4' (H3K4me2 and H3K4me3) (PubMed:17898714, PubMed:18077460). Acts as a transcriptional repressor of various genes such as HOXA2, THBS1 and TP53 (PubMed:19509293). Repression of TP53 blocks cellular senescence (By similarity). Also methylates histone H2A and H4 'Arg-3' (H2AR3me and H4R3me, respectively). Acts as a regulator of DNA base excision during DNA repair by mediating the methylation of DNA polymerase beta (POLB), leading to the stimulation of its polymerase activity by enhancing DNA binding and processivity (PubMed:16600869). Methylates HMGA1 (PubMed:16157300, PubMed:16159886). Regulates alternative splicing events. Acts as a transcriptional coactivator of a number of steroid hormone receptors including ESR1, ESR2, PGR and NR3C1. Promotes fasting-induced transcriptional activation of the gluconeogenic program through methylation of the CRTC2 transcription coactivator (By similarity). May play a role in innate immunity against HIV-1 in case of infection by methylating and impairing the function of various HIV-1 proteins such as Tat, Rev and Nucleocapsid protein p7 (NC) (PubMed:17267505). Methylates GPS2, protecting GPS2 from ubiquitination and degradation (By similarity). Methylates SIRT7, inhibiting SIRT7 histone deacetylase activity and promoting mitochondria biogenesis (PubMed:30420520).

Cellular Location

Nucleus.

Tissue Location

Highly expressed in kidney and testis.

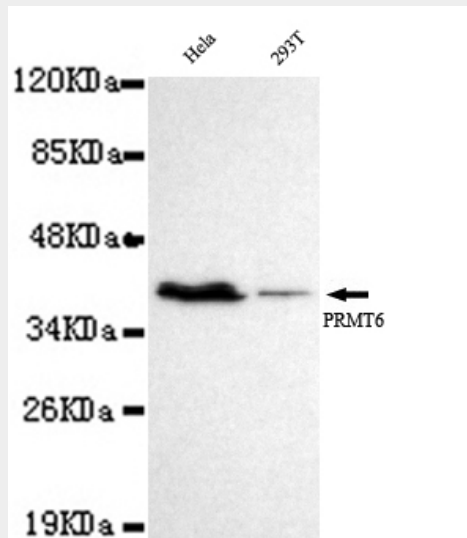
PRMT6 Antibody - Protocols

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

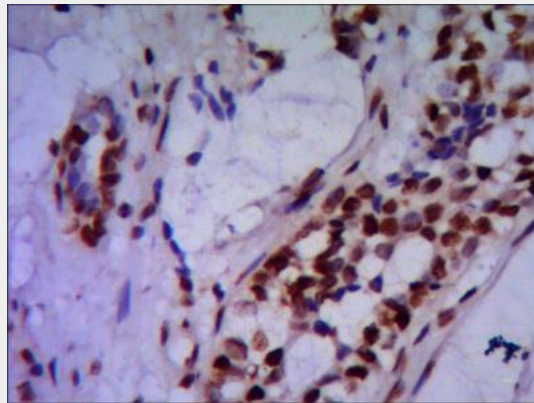
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)

- [Cell Culture](#)

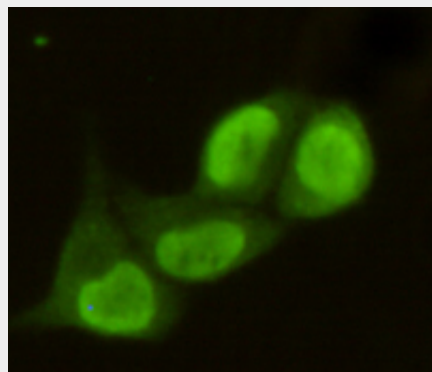
PRMT6 Antibody - Images



Western blot detection of PRMT6 in HeLa and 293T cell lysates using PRMT6 mouse mAb (1:1000 diluted). Predicted band size: 42KDa. Observed band size: 42KDa.



Immunohistochemistry stain of paraffin-embedded human breast cancer using PRMT6 mouse mAb (1:200).



Immunocytochemistry stain of HeLa using PRMT6 mouse mAb (1:300).

PRMT6 Antibody - Background

Arginine methyltransferase that can catalyze the formation of both omega-N monomethylarginine (MMA) and asymmetrical dimethylarginine (aDMA), with a strong preference for the formation of aDMA. Preferentially methylates arginyl residues present in a glycine and arginine-rich domain and displays preference for monomethylated substrates. Specifically mediates the asymmetric dimethylation of histone H3 'Arg-2' to form H3R2me2a. H3R2me2a represents a specific tag for epigenetic transcriptional repression and is mutually exclusive with methylation on histone H3 'Lys-4' (H3K4me2 and H3K4me3). Acts as a transcriptional repressor of various genes such as HOXA2, THBS1 and TP53. Repression of TP53 blocks cellular senescence (By similarity). Also methylates histone H2A and H4 'Arg-3' (H2AR3me and H4R3me, respectively). Acts as a regulator of DNA base excision during DNA repair by mediating the methylation of DNA polymerase beta (POLB), leading to the stimulation of its polymerase activity by enhancing DNA binding and processivity. Methylates HMGA1. Regulates alternative splicing events. Acts as a transcriptional coactivator of a number of steroid hormone receptors including ESR1, ESR2, PGR and NR3C1. Promotes fasting- induced transcriptional activation of the gluconeogenic program through methylation of the CRT2 transcription coactivator. May play a role in innate immunity against HIV-1 in case of infection by methylating and impairing the function of various HIV-1 proteins such as Tat, Rev and Nucleocapsid protein p7 (NC).

PRMT6 Antibody - References

- Frankel A.,et al.J. Biol. Chem. 277:3537-3543(2002).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Gregory S.G.,et al.Nature 441:315-321(2006).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
Bechtel S.,et al.BMC Genomics 8:399-399(2007).