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PRMT6 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1347a

Specification

PRMT6 Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	Q96LA8
Reactivity	**Human, Monkey**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**42kDa KDa**

Description
Protein arginine N-methyltransferases, such as PRMT6, catalyze the sequential transfer of a methyl group from S-adenosyl-L-methionine to the side chain nitrogens of arginine residues within proteins to form methylated arginine derivatives and S-adenosyl-L-homocysteine.

Immunogen
Purified recombinant fragment of human PRMT6 expressed in E. Coli.

Formulation
Ascitic fluid containing 0.03% sodium azide.

PRMT6 Antibody - Additional Information

Gene ID 55170

Other Names
Protein arginine N-methyltransferase 6, 2.1.1.-, Heterogeneous nuclear ribonucleoprotein methyltransferase-like protein 6, Histone-arginine N-methyltransferase PRMT6, 2.1.1.125, PRMT6, HRMT1L6

Dilution
WB~~1/500 - 1/2000
IHC~~1:200~~1000
IF~~1:200~1000.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
PRMT6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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: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:18079182, PubMed:18077460). 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.

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- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PRMT6 Antibody - Images

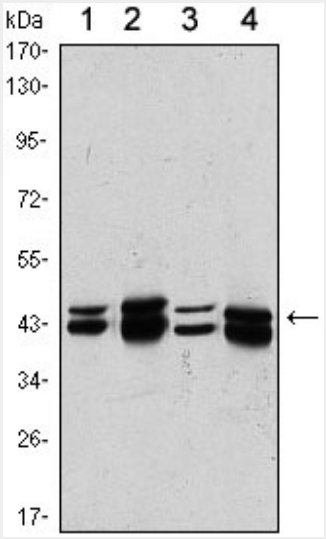


Figure 1: Western blot analysis using PRMT6 mouse mAb against A431 (1), Hela (2), A549 (3) and HEK293 (4) cell lysate.

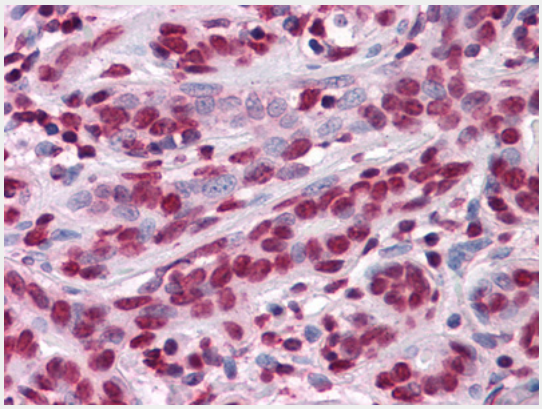


Figure 2: Immunohistochemical analysis of paraffin-embedded human Breast tissues using anti-ZBTB7B mouse mAb

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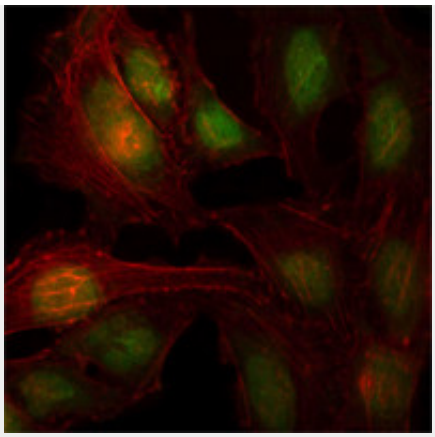


Figure 2: Immunofluorescence analysis of Hela cells using ZBTB7B mouse mAb (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin

PRMT6 Antibody - References

1. Gene. 1994 Jan 28;138(1-2):171-4. 2. J Biol Chem. 2002 Feb 1;277(5):3537-43. 3. Nat Genet. 2004 Jan;36(1):40-5.