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KD-Validated Anti-PRMT6 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1694

Specification

KD-Validated Anti-PRMT6 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC**
Primary Accession	Q96LA8
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 42 kDa , observed, 42 kDa KDa**
Gene Name	**PRMT6**
Aliases	**Protein Arginine Methyltransferase 6; HRMT1L6; Heterogeneous Nuclear Ribonucleoprotein Methyltransferase-Like Protein 6; Histone-Arginine N-Methyltransferase PRMT6; Protein Arginine N-Methyltransferase 6; FLJ10559; HMT1 HnRNP Methyltransferase-Like 6 (S. Cerevisiae); HMT1 HnRNP Methyltransferase-Like 6; EC 2.1.1.319**
Immunogen	**A synthesized peptide derived from human PRMT6**

KD-Validated Anti-PRMT6 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**55170**

Other Names
Protein arginine N-methyltransferase 6, 2.1.1.319, Heterogeneous nuclear ribonucleoprotein methyltransferase-like protein 6, Histone-arginine N-methyltransferase PRMT6, PRMT6, HRMT1L6

KD-Validated Anti-PRMT6 Rabbit Monoclonal 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:<a

href="http://www.uniprot.org/citations/17898714" target="_blank">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.

KD-Validated Anti-PRMT6 Rabbit Monoclonal 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 Cytomety
- Cell Culture

KD-Validated Anti-PRMT6 Rabbit Monoclonal Antibody - Images

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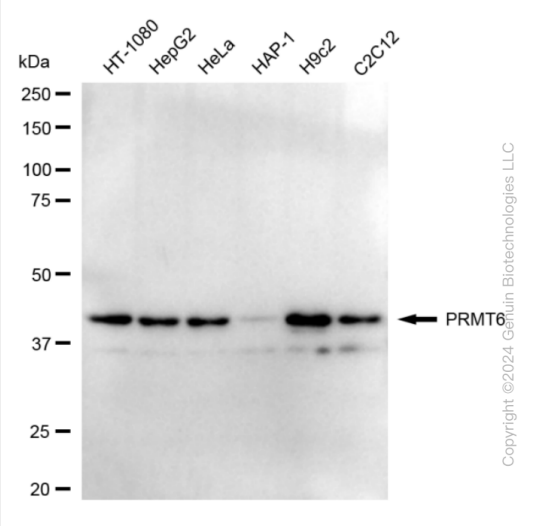
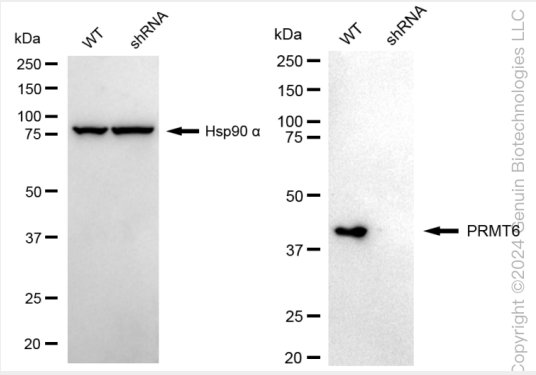
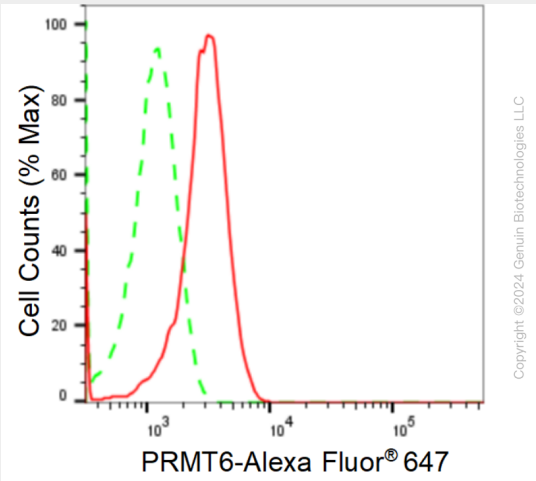


Western blotting analysis using anti-PRMT6 antibody (Cat#AGI1694). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-PRMT6 antibody (Cat#AGI1694, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-PRMT6 antibody (Cat#AGI1694). PRMT6 expression in wild type (WT) and PRMT6 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-PRMT6 antibody (Cat#AGI1694, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of PRMT6 expression in H9c2 cells using anti-PRMT6 antibody (Cat#AGI1694, 1:2,000). Green, isotype control; red, PRMT6.