ARG54004
anti-PRMT6 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody recognizes PRMT6
Tested Reactivity	Hu
Tested Application	ICC/IF, IHC-P, WB
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Target Name	PRMT6
Species	Human
Immunogen	Purified recombinant human PRMT6 protein fragments expressed in E.coli.
Conjugation	Un-conjugated
Alternate Names	Protein arginine N-methyltransferase 6; EC 2.1.1.-; Heterogeneous nuclear ribonucleoprotein methyltransferase-like protein 6; Histone-arginine N-methyltransferase PRMT6; HRMT1L6; EC 2.1.1.125

Application Instructions

Application table

Application	Dilution
ICC/IF	1:300
IHC-P	Assay-dependent
WB	1:1000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Observed Size: 42 kDa

Properties

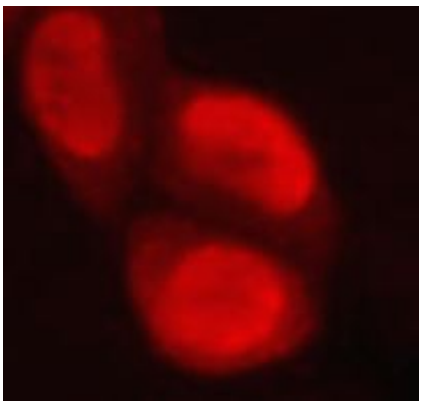
Form	Liquid
Purification	Affinity purified
Buffer	0.1M Tris-Glycine (pH 7.4), 150 mM NaCl, 0.2% Sodium azide and 50% Glycerol
Preservative	0.2% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

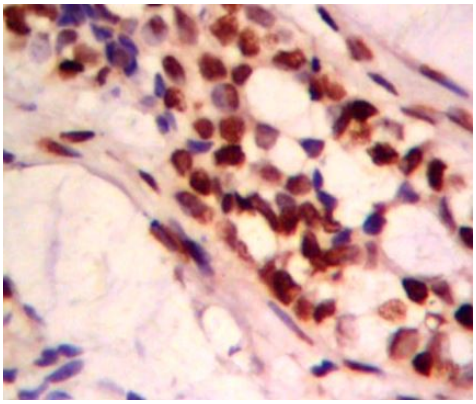
Database links	GeneID: 55170 Human Swiss-port # Q96LA8 Human
Gene Symbol	PRMT6
Gene Full Name	protein arginine methyltransferase 6
Background	Arginine methyltransferase that can both catalyze the formation of omega-N monomethylarginine (MMA) and asymmetrical dimethylarginine (aDMA), with a strong preference 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). It thereby acts as a transcription corepressor of various genes such as HOXA2. 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 stimulate the polymerase activity by enhancing DNA binding and processivity. Methylates HMGA1. 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).
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. 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 CRTC2 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). [UniProt]
Research Area	Gene Regulation antibody
Calculated Mw	42 kDa
PTM	Automethylation enhances its stability and antiretroviral activity.
Cellular Localization	Nucleus

Images



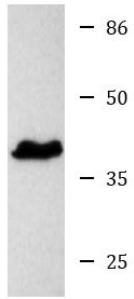
ARG54004 anti-PRMT6 antibody ICC/IF image

Immunofluorescence: HeLa cells stained with ARG54004 anti-PRMT6 antibody at 1:300 dilution.



ARG54004 anti-PRMT6 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human breast cancer tissue stained with ARG54004 anti-PRMT6 antibody at 1:200 dilution.



ARG54004 anti-PRMT6 antibody WB image

Western blot: HeLa cell lysate stained with ARG54004 anti-PRMT6 antibody at 1:1000 dilution.