

Recombinant Mouse Prmt6 Protein, Myc/DDK-tagged

Cat. No. Prmt6-5134M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length protein arginine N-methyltransferase 6 (Prmt6), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	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 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 Methylates GPS2,

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	protecting GPS2 from ubiquitination and degradation Methylates SIRT7, inhibiting SIRT7 histone deacetylase activity and promoting mitochondria biogenesis.
Molecular Mass	42.3 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Prmt6 protein arginine N-methyltransferase 6 [Mus musculus (house mouse)]
Official Symbol	Prmt6
Synonyms	PRMT6; protein arginine N-methyltransferase 6; HMT1 hnRNP methyltransferase-like 6; histone-arginine N-methyltransferase PRMT6; Hrmt1l6; AW124876; BB233495
Gene ID	99890
mRNA Refseq	NM_178891
Protein Refseq	NP_849222

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UniProt ID

Q6NZB1

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