



## Product Datasheet

<b>Product Name</b>	Protein Arginine Methyltransferase 1 Mouse Recombinant
<b>Cata No</b>	CB501374
<b>Source</b>	<i>Escherichia Coli.</i>
<b>Synonyms</b>	ANM1, HCP1, HRMT1L2, IR1B4, Interferon receptor 1-bound protein 4, EC 2.1.1, Protein arginine N-methyltransferase 1, Prmt1, AW214366, 6720434D09Rik.

### Description

PRMT1 Methylates (mono & asymmetric dimethylation) the guanidino nitrogens of arginyl residues present in a glycine and arginine-rich domain (may methylate HNRNPA1 and histones).

Methylates SUPT5H.

The PRMT1 protein functions as a histone methyltransferase specific for H4.

PRMT1 is an essential factor in oncogenesis and is a potential novel therapeutic target in cancer.

PRMT1-mediated methylation serves as a positive modulator of IR/IRS-1/PI3K pathway and glucose uptake in skeletal muscle cells.

CAF1 is a new regulator of PRMT1-dependent arginine methylation.

PRMT1 arginine-methylates MRE11 therefore it regulates the activity of MRE11-RAD50-NBS1 complex during the intra-S-phase DNA damage checkpoint response.

PRMT1 plays a post-translationally part in regulating the transcriptional activity.

PRMT1 is found predominantly in the cytoplasm though a fraction of PRMT1 is located in the nucleus.

PRMT1 Mouse Recombinant fused with His-MBP tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 750 amino acids and having a molecular mass of 84 kDa.

The PRMT1 is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile Filtered colorless solution.

### Biological Activity

10,000 Units/ml.

### Purity

Greater than 90.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Analysis by SDS-PAGE.

### Formulation

The PRMT1 solution contains 40mM Tris pH 8.0, 100mM NaCl, 4mM MgCl<sub>2</sub>, 2mM DTT & 40% glycerol.

### Stability

PRMT1 although stable 4°C for 4 weeks, should be stored desiccated below -18°C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

**Please prevent freeze-thaw cycles.**

### Sequence

MHHHHHMKI EEGKLVWIN GDKGYNGLAE  
VGKKFEKDTG IKVTVEHPDK LEEKFPQVAA  
TGDGPDIIFW AHDRFGGYAQ SGLLAEITPD  
KAFQDKLYPF TWDAVRYNGK LIAYPIAVEA  
LSLIYNKDLL PNPPKTWEEI PALDKELKAK  
GKSALMFNLQ EPYFTWPLIA ADGGYAFKYE  
NGKYDIKDVG VDNAGAKAGL TFLVDLIKNK  
HMNADTDYSI AEA AFNKGET AMTINGPWAW  
SNIDTSKVNY GVTVLPTFKG QPSKPFVGLV  
SAGINAASPN KELA KEFLEN YLLTDEGLEA  
VNKDKPLGAV ALKSYEEELA KDPRIAATME

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NAQKGEIMPN IPQMSAFWYA VRTAVINAAS  
GRQTVDEALK DAQTNSSSN NNNNNNNNLG  
IEGRGSHMAA AEAANCIMEV SCGQAESSEK  
PNAEDMTSKD YYFDSYAHFG IHEEMLKDEV  
RTLTYRNSMF HNRHLFKDKV  
VLDVGSSTGILCMFAAKAGA RKVIGIECSS  
ISDYAVKIVK ANKLDHVVTI IKGKVEEVEL  
PVEKVDIIS EWMGYCLFYE SMLNTVLHAR  
DKWLAPDGLI FPDRATLYVT AIEDRQYKDY  
KIHWWENVYG

FDMSCIKDVA IKEPLV...  
IKEVDIYTVK VEDLTFTSPF  
CLQVKRNDYVHALVAYFNIE FTRCHKRTGF  
STSPESPYTH WKQTVFYMED YLTVKTGEEI  
FGTIGMRPNA KNNRDLFTI DLDFKQQLCE  
LSCSTDYRMR

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