

## Recombinant Human PRMT1 (Active)

<b>CATALOG #:</b>	4865-10	10 µg
	4865-50	50 µg
	4865-1000	1 mg
<b>SOURCE:</b>	<i>E. coli</i>	
<b>PURITY:</b>	≥ 90% as determined by SDS-PAGE	
<b>MOLECULAR WEIGHT:</b>	84.0 kDa	
<b>PHYSICAL APPEARANCE:</b>	Sterile filtered liquid	
<b>SPECIFIC ACTIVITY:</b>	10,000 Units/ml.	
<b>UNIT DEFINITION:</b>	One unit will transfer 1pmol of methyl group to synthetic peptide of histone H4 for 10 minutes at 37°C.	
<b>FORMULATION:</b>	40mM Tris-HCl pH 8.0, 100mM NaCl, 4mM MgCl <sub>2</sub> , 2mM DTT & 40% glycerol.	
<b>STORAGE CONDITIONS:</b>	Stored at -20°C to -80°C. Stable for 6-12 months. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycle	

### DESCRIPTION:

PRMT1 methylate's (mono & asymmetric dimethylation) the guanidino nitrogens of arginyl residues present in a glycine and arginine-rich domain (may methylate HNRNPA1 and histones) methylate's 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-methylate's 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 Human Recombinant (a.a. 1-353) 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.

**Amino acid sequence:** MHHHHHMKI EEGKLIWIN GDKGYNGLAE VGKFKFEDTG IKVTVEHPDK LEEKFPQVAA TGDGPDIIIFW AHDRFGGYAQ SGLLAEITPD KAFQDKLYPF TWDVAVRYNGK LIAYPIAVEA LSLIYNKDLL PNPPKTWEEI PALDKELKAK GKSALMFNLQ EPYFTWPLIA ADGGYAFKYE NGKYDIKDVG VDNAGAKAGL TFLVDLIKKNK HMNADTDYSI AEAAFNKGET AMTINGPWAW SNIDTSKVNY GVTVLPTFKG QPSKPFVGLV SAGINAASPN KELAKEFLEN YLLTDEGLEA VNKDKPLGAV ALKSYEEELA KDPRIAATME NAQKGEIMPN IPQMSAFWYA VRTAVINAAS GRQTVDEALK DAQTNSSNN NNNNNNNNLG IEGRGSHMAA AEAANCIMEV SCGQAESSEKPN AEDMTSKD YYFDSYAHFG IHEEMLKDEV RLTLYRNSMF HNRHLFKDKV VLDVGSSTGI LCMFAAKAGA RKVIGIECSS ISDYAVKIVK ANKLDHVVTI IKGKVEEVEL PVEKVDIIIS EWMGYCLFYE SMLNTVLYAR DKWLAPDGLI FPDRTLYVT AIEDRQYKDY KHWVENVYG FDMSCIKDVA IKEPLVDVVD PKQLVTNAEL IKEVDIYTVK VEDLFTTSPF CLQVQRNDYV HALVAYFNIE FTRCHKRTGF STSPESPYTH WKQTVFYMED YLTVTKGEEI FGTIGMRPNA KNNRDLDFTI DLDFKGLCE LSCSTDYRMR.

### RELATED PRODUCTS:

- 3935-100: PRMT-5 Antibody
- 3935BP-50: PRMT-5 Blocking Peptide
- 3792-100: PRMT1 Antibody
- 3086-100: PRMT6 antibody New : PRMT6 antibody
- 3086BP-50: PRMT6 Blocking Peptide New : PRMT6 Blocking Peptide
- 3059-100: PRMT7 Antibody New : PRMT7 Antibody
- 3059BP-50: PRMT7 blocking peptide New : PRMT7 blocking peptide
- 3734R-100: CARM1 Antibody
- 4868- 10, 50,1000 Recombinant Mouse PRMT1

**USAGE:** For Research Use Only. Not to be used in humans.