PRODUCT DATASHEET

PRMT6 (His) (Protein Arginine Methyltransferase 6)

CATALOG NO.: HMT-21-380 **LOT NO.:**

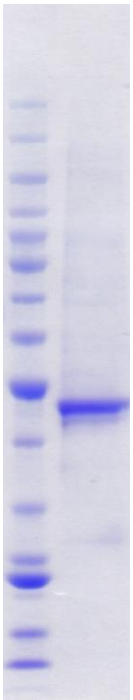
DESCRIPTION: Full-length human recombinant PRMT6 expressed in baculovirus system (residues 2-375); Genbank Accession # NM_018137; N-terminal His-tag; MW = 45.1 kDa). PRMT6, a type I arginine methyltransferase, catalyzes the transfer of a methyl group from S-adenosyl-L-methionine (SAM) to an ω-nitrogen of the guanidino function of protein L-arginine residues and the transfer of a second methyl group to the same nitrogen, yielding asymmetric dimethylarginine (aDMA). PRMT6 methylates Arg-2 of histone H3 (H3R2), promoting transcriptional repression.

PURITY: >85% by SDS-PAGE.

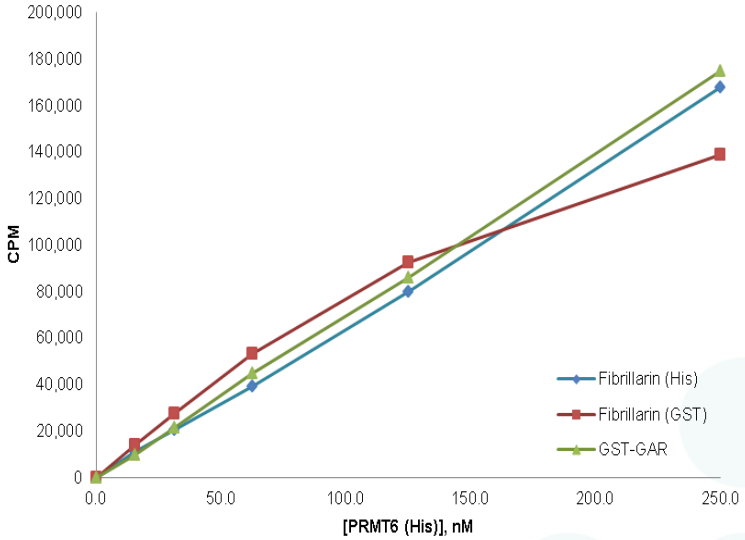
ASSAY CONDITIONS: RBC's PRMT6 displays substantial methyltransferase activity from [^{3}H]-SAM to GST-GAR (Cat. #HMT-11-137), Fibrillarin (Hist) (Cat. #HMT-11-183) and Fibrillarin (GST) (Cat #HMT-11-184; see Figure, below). Activity was determined as TCA-precipitated counts in a scintillation/filter plate assay (Multiscreen FB, Topcount). Reaction conditions: 50 mM Tris-HCl, pH 8.5, 50 mM NaCl, 5 mM $MgCl_2$, 1 mM DTT, 1 mM PMSF, 30°C, 60 min. with 1 µM [^{3}H]-SAM and 1 µM of indicated substrate.

SUPPLIED AS: __ µg/µl total protein in 25.4 mM Na_2HPO_4, 4.4 mM KH_2PO_4, pH 7.4, 137 mM NaCl, 2.7 mM KCl, 3 mM DTT, 30% (w/v) glycerol as determined by OD_{280}

STORAGE: -70°C. Thaw quickly and store on ice before use. The remaining, unused, undiluted enzyme should be refrozen quickly by, for example, snap freezing in a dry/ice ethanol bath or liquid nitrogen. Freezing and storage of diluted enzyme is not recommended.



Coomassie blue stained SDS-PAGE (4 – 12% acrylamide) of 4 µg (right) of RBC PRMT6. MW markers (left) are, from top, 220, 160, 120, 100, 90, 80, 70, 60, **50**, 40, 30, 25, **20**, 15, 10 kDa



Methyltransferase Activity of PRMT6. Methylation determined as TCA-precipitable counts in a scintillation/filter plate assay. Reactions were 60 min., 30°C, with 1 µM [^{3}H]-SAM and 0.77µM protein substrates as indicated.

Reaction Biology
1 Great Valley Parkway, Malvern PA, USA 19355
requests@reactionbiology.com www.reactionbiology.com