

Recombinant PRMT6 protein

Catalog No: 31394, 31794

Expressed In: Baculovirus

Quantity: 20 µg

Concentration: 0.3 µg/µl

Source: Human

Buffer Contents: Full length recombinant PRMT6 protein was expressed in Sf9 cells at a concentration of 0.3 µg/µl in 25 mM Hepes pH 7.5, 300 mM NaCl, 5% glycerol, 0.04% Triton X-100, 0.2 mM TCEP.

Background: PRMT6 (Protein Arginine Methyltransferase 6, HRMT1L6, ANM6) is a type I arginine methyltransferase. Arginine methylation is a common post-translational modification of histones and other cellular proteins. PRMT6 preferentially methylates arginine residues present in GAR (glycine and arginine-rich) domains. PRMT6 asymmetrically dimethylates histone H3 at Arg2, which is mutually exclusive to methylation at lysine 4 (associated with transcriptional activation), and thus PRMT6 serves as a transcriptional repressor in this context. It can also symmetrically dimethylate H2A and H4 at Arg3 and serves as a coactivator of transcription in concert with nuclear receptors.

Protein Details: Recombinant PRMT6 (accession number NP_060607.2) was expressed in Sf9 cells and contains an N-terminal FLAG tag with an observed molecular weight of 43.7 kDa. This recombinant protein is ≥ 85% pure by SDS-PAGE.

Application Notes: Recombinant PRMT6 is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling.

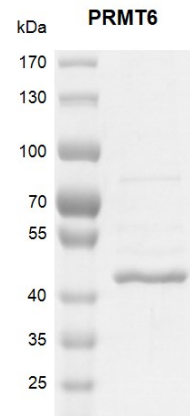
Specific Activity: Specifically mediates the asymmetric dimethylation of histone H3 'Arg-2' to form H3R2me2a. Also methylates histone H2A and H4 'Arg -3' (H2AR3me and H4R3me, respectively).

HMT Assay Conditions:

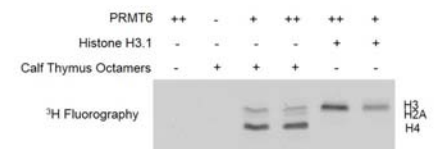
60 ng/ul Calf Thymus Octamers were incubated with 30 ng/ul recombinant PRMT6 protein in reaction buffer including 50 mM Tris-HCl, pH 8.6, 0.02% Triton X-100, 2 mM MgCl₂, 1 mM TCEP, 9 nCi/µl 3H-SAM for 3 hours at room temperature. Activity was detected by fluorography.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is guaranteed for 6 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.



Recombinant PRMT6 protein gel. PRMT6 protein was run on a 10% SDS-PAGE gel and stained with Coomassie blue.



PRMT6 activity assay.

30 ng/µl Recombinant Histone H3.1 (Cat# 31294) or 60 ng/µl Calf Thymus Octamer were incubated with 15 ng/µl PRMT6 (+) and 30 ng/µl PRMT6(++), respectively, in reaction buffer for 3 hours at room temperature. Activity was detected by fluorography.