

Recombinant PRMT5 protein

Catalog No: 31393, 31793

Expressed In: Baculovirus

Quantity: 20, 1000 µg

Concentration: 0.35 µg/µl

Source: Human

Buffer Contents: Recombinant PRMT5 protein is supplied in 25 mM HEPES pH 7.5, 300 mM NaCl, 10% glycerol, 0.04% Triton X-100, and 0.5 mM TCEP.

Background: PRMT5 (Protein Arginine Methyltransferase 5, also known as JBP1, Janus Binding Protein 1) is a type II arginine methyltransferase, a protein that transfers methyl groups to the arginine residues of substrate proteins. Arginine methylation is a common post-translational modification of histones and other cellular proteins. PRMT5 symmetrically dimethylates histone H2A Arg3, H3 Arg8 and H4 Arg3. It also methylates Piwi proteins which regulate small non-coding RNAs and snRNPs, regulating snRNP core particle assembly. PRMT5 functions as a co-repressor of transcription and is recruited by a number of DNA binding proteins and transcriptional repressor complexes. It is present both in the nucleus and the cytoplasm. It also interacts with COPR5, JAK2, PRDM1 and RPS10.

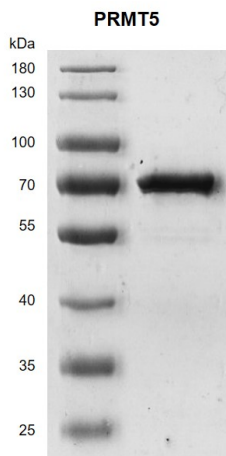
Protein Details: Recombinant PRMT5 (accession number NP_006100.2) was expressed in Sf9 cells and contains an N-terminal FLAG-Tag with an observed molecular weight of 74 kDa. The recombinant protein is >90% pure by SDS-PAGE.

Application Notes: Recombinant PRMT5 is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling. PRMT5 is an active H3R8 and H4R3 methyltransferase.

HMT Assay Conditions: 0.25 µg of Histone H4 (Cat. No. 31493) was incubated with 0 µg, 0.075 µg, 0.15 µg, and 0.3 µg PRMT5 protein in a 30 µl reaction system containing 50 mM Tris-HCl pH 8.6, 0.02% Triton X-100, 2 mM MgCl₂, 1 mM TCEP, 50 µM SAM for 3 hr at room temperature. Reaction products were run on a 12.5% SDS-PAGE and detected by H4R3me₂s antibody (Cat. No. 61187). PRMT5 only was used as negative control. Western Blot was used for activity detection.

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 PRMT5 protein gel.

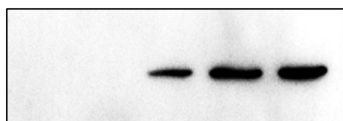
PRMT5 protein was run on a 10% SDS-PAGE gel and stained with Coomassie Blue.

MW: 74.2 kDa

Purity: > 95%

Histone H4	0	0.25	0.25	0.25	0.25	μg
PRMT5	0.3	0	0.075	0.15	0.3	μg

α-H4R3me2S



HMT assay for recombinant PRMT5 protein activity

0.25 μg of Histone H4 (Cat. No. 31493) was incubated with 0 μg, 0.075 μg, 0.15 μg, and 0.3 μg PRMT5 protein in a 30 μl reaction system containing 50 mM Tris-HCl pH 8.6, 0.02% Triton X-100, 2 mM MgCl₂, 1 mM TCEP, 50 μM SAM for 3 hr at room temperature. Reaction products were run on a 12.5% SDS-PAGE and detected by H4R3me2s antibody (Cat. No. 61187). PRMT5 only was used as negative control. Western Blot was used for activity detection.