

Recombinant PRMT5 / MEP50 complex

Catalog No: 31521, 31921

Lot No: 24517001

Expressed In: Baculovirus

Quantity: 20, 1000 µg

Concentration: 0.4 µg/µl

Source: Human

Buffer Contents: Recombinant PRMT5 / MEP50 Complex is supplied at a concentration of 0.4 µg/µl in 25 mM HEPES pH 7.5, 300 mM NaCl, 10% glycerol, 0.04% Triton X-100, 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. PRMT5 acts as part of a multimeric complex in concert with a variety of partner proteins that regulate its function and specificity. A core component of these complexes is the WD40 protein MEP50/WDR77/p44, which mediates interactions with binding partners and substrates. PRMT5 is present both in the nucleus and the cytoplasm. It also interacts with COPR5, JAK2, PRDM1 and RPS10.

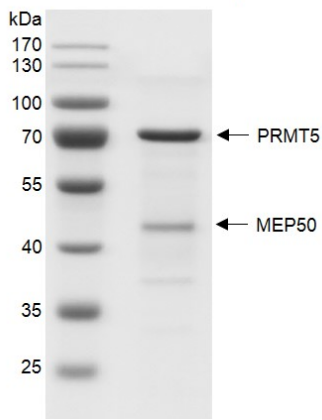
Protein Details: Recombinant PRMT5 / MEP50 Complex that includes full-length PRMT5 (accession numbers NP_006100.2) with an N-terminal FLAG tag and full-length MEP50 (accession numbers NP_077007.1) without tag was expressed in a baculovirus expression system. The molecular weights of PRMT5 and MEP50 are 74 kDa and 36.7 kDa, respectively.

Application Notes: Recombinant PRMT5 / MEP50 Complex is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling.

HMT Assay Conditions: 0.5 µg Histone H4 (Cat. No. 31493) was incubated with different concentrations of PRMT5 / MEP50 Complex in 30 µl reaction system including 50 mM Tris-HCl pH 8.6, 0.02% Triton X-100, 2 mM MgCl₂, 1 mM TCEP, and 50 µM SAM for 3 hours at room temperature. Activity was detected by Western Blot.

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 for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.

PRMT5 / MEP50 Complex



Recombinant PRMT5 / MEP50 complex - protein gel.
 10% SDS-PAGE gel stained with Coomassie blue.
 MW of PRMT5: 74 kDa
 MW of MEP50: 36.7 kDa
 Purity: > 90%



PRMT / MEP50 complex, Activity Assay

0.5 µg Histone H4 (Cat# 31493) was incubated with 0 µg (-), 0.225 µg (+), 0.45 µg (++) , or 0.9 µg (+++) PRMT5 / MEP50 complex in 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 hours at room temperature. 6 µl reaction products were loaded and run on a 12.5% SDS-PAGE gel. Western Blot was used to detect the generation of reaction products (H4R3me2s antibody, Cat. No. 61187, 1:1000 dilution). PRMT5 / MEP50 Complex only was used as negative control.