

Recombinant human PRMT6 protein ab196434

3 Images

Description

Product name	Recombinant human PRMT6 protein
Biological activity	Specific Activity 0.015 pmol/min/Åµg Assay Conditions: 50 µl reaction mix (20 mM phosphate buffer pH 7.4, 20 µM S-adenosylmethionine, and 1-5 ng methyltransferase PRMT6) is added to microwells coated with histone substrate. Incubate at 30°C for 2 hr. Add antibody against methylated Arg residue of histone H3, incubate 1 hr. Then, add secondary HRP-labeled antibody and incubate 30 min. Finally, add HRP chemiluminescent substrates and read luminescence.
Purity	>= 45 % SDS-PAGE.
Expression system	Escherichia coli
Accession	<u>Q96LA8</u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	SQPKKRKLES GGGGEGGEGTEEEEDGAEREAALERPRRT KRERDQLYYECY SDVSVHEEMIADRVRTDAYRLGILRNWAALRGKTVLDVGA GTGILSIFCA QAGARRVYAVEASAWQQAREVVRFNGLIEDRVHVLPGPV ETVELPEQVDA MSEWMGYGLLHESMLSSVLHARTKWLKEGGLLLPASAE LFIAPISDQML EWRLGFWSQVKQHYGVDMSCLEGFATRCLMGHSEMVQ GLSGEDVLARPQ RFAQLELSRAGLEQELEAGVGGFRFCSCYGSAPMHGF WFQVTFPGGES EKPLVLSTSPFHPATHWKQALLYLNEPVQVEQDQTDVSGEI TLLPSRDNPRRLRVLLRYKVG DQEEKTKDFAMED
Predicted molecular weight	43 kDa including tags
Amino acids	2 to 375
Tags	His tag N-Terminus

Additional sequence information Genbank accession no.: NM_018137

Specifications

Our **Abpromise guarantee** covers the use of **ab196434** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE Functional Studies
Form	Liquid

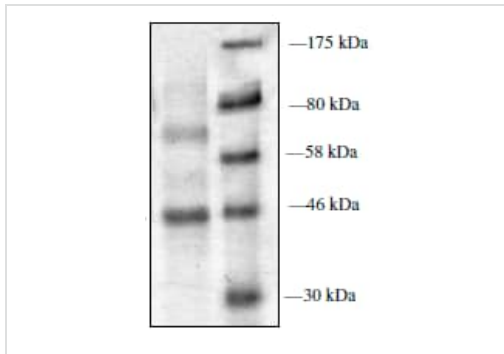
Preparation and Storage

Stability and Storage	Shipped on Dry Ice. Store at -80°C. Avoid freeze / thaw cycle. pH: 8.00 Preservative: 1.36% Imidazole Constituents: 0.63% Tris HCl, 0.64% Sodium chloride, 0.02% Potassium chloride, 0.05% (R*,R*)-1,4-Dimercaptobutan-2,3-diol, 20% Glycerol (glycerin, glycerine) This product is an active protein and may elicit a biological response in vivo, handle with caution.
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General Info

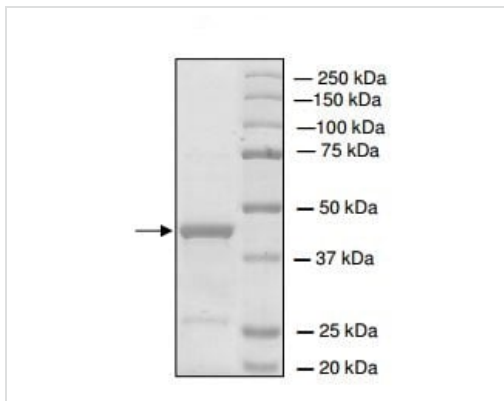
Function	Arginine methyltransferase that can catalyze the formation of both omega-N monomethylarginine (MMA) and asymmetrical dimethylarginine (aDMA), with a strong preference for the formation of aDMA. Preferentially methylates arginyl residues present in a glycine and arginine-rich domain and displays preference for monomethylated substrates. Specifically mediates the asymmetric dimethylation of histone H3 'Arg-2' to form H3R2me2a. H3R2me2a represents a specific tag for epigenetic transcriptional repression and is mutually exclusive with methylation on histone H3 'Lys-4' (H3K4me2 and H3K4me3). Acts as a transcriptional repressor of various genes such as HOXA2, THBS1 and TP53. Repression of TP53 blocks cellular senescence (By similarity). Also methylates histone H2A and H4 'Arg-3' (H2AR3me and H4R3me, respectively). Acts as a regulator of DNA base excision during DNA repair by mediating the methylation of DNA polymerase beta (POLB), leading to the stimulation of its polymerase activity by enhancing DNA binding and processivity. Methylates HMGA1. Regulates alternative splicing events. Acts as a transcriptional coactivator of a number of steroid hormone receptors including ESR1, ESR2, PGR and NR3C1. Promotes fasting-induced transcriptional activation of the gluconeogenic program through methylation of the CRTIC2 transcription coactivator. May play a role in innate immunity against HIV-1 in case of infection by methylating and impairing the function of various HIV-1 proteins such as Tat, Rev and Nucleocapsid protein p7 (NC).
Tissue specificity	Highly expressed in kidney and testis.
Sequence similarities	Belongs to the class I-like SAM-binding methyltransferase superfamily. Protein arginine N-methyltransferase family. PRMT6 subfamily. Contains 1 SAM-dependent MTase PRMT-type domain.
Post-translational modifications	Automethylation enhances its stability and antiretroviral activity.
Cellular localization	Nucleus.

Images



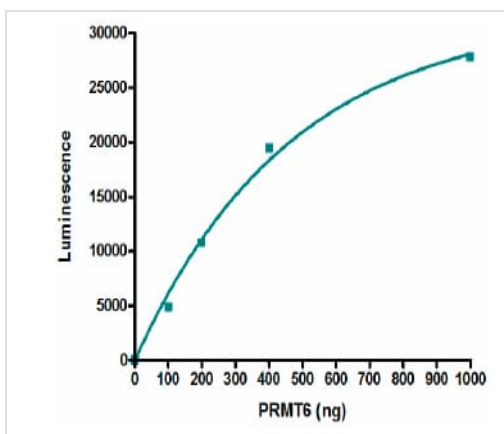
SDS-PAGE - Recombinant human PRMT6 protein (ab196434)

SDS-PAGE analysis of 3 µg of ab196434 on a 10% SDS-PAGE gel stained with Coomassie.



SDS-PAGE - Recombinant human PRMT6 protein (ab196434)

SDS-PAGE analysis of 2 µg of ab196434 on a 4-20% SDS-PAGE gel stained with Coomassie.



Functional Studies - Recombinant human PRMT6 protein (ab196434)

Specific activity of ab196434.

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