

Recombinant human EHMT2/G9A protein ab80323

2 Images

Description

Product name	Recombinant human EHMT2/G9A protein
Biological activity	Activity: 22 pmol/min/μg. Assay conditions: Enzyme was incubated with 0.5 μM of biotinylated H3 peptide with 40 μM AdoMet in HMT buffer 1A in a 10-μl reaction. 5 μl of Anti-Mouse AlphaLISA acceptor beads (1:250) and 5 μl of Primary Antibody 7 (1:50) were added and incubation continued for 30 min. Streptavidin Donor beads (1:125) were added (10 μl) and mixture was further incubated for 15 min at RT before counts were measured.
Purity	> 80 % SDS-PAGE. Affinity purified.
Expression system	Escherichia coli
Accession	<u>Q96KQ7</u>
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Predicted molecular weight	75 kDa including tags
Amino acids	785 to 1210
Tags	GST tag N-Terminus
Additional sequence information	74.6 kDa including tag

Specifications

Our **Abpromise guarantee** covers the use of **ab80323** in the following tested applications.

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

Applications	Functional Studies SDS-PAGE
Form	Liquid

Preparation and Storage

Stability and Storage	Shipped on Dry Ice. Upon delivery aliquot. Store at -80°C. Avoid freeze / thaw cycle.
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pH: 8.00

Constituents: 0.0462% (R*,R*)-1,4-Dimercaptobutan-2,3-diol, 0.395% Tris HCl, 0.05% Tween, 30% Glycerol (glycerin, glycerine), 0.58% Sodium chloride

This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

Function

Histone methyltransferase that specifically mono- and dimethylates 'Lys-9' of histone H3 (H3K9me1 and H3K9me2, respectively) in euchromatin. H3K9me represents a specific tag for epigenetic transcriptional repression by recruiting HP1 proteins to methylated histones. Also mediates monomethylation of 'Lys-56' of histone H3 (H3K56me1) in G1 phase, leading to promote interaction between histone H3 and PCNA and regulating DNA replication. Also weakly methylates 'Lys-27' of histone H3 (H3K27me). Also required for DNA methylation, the histone methyltransferase activity is not required for DNA methylation, suggesting that these 2 activities function independently. Probably targeted to histone H3 by different DNA-binding proteins like E2F6, MGA, MAX and/or DP1. May also methylate histone H1. In addition to the histone methyltransferase activity, also methylates non-histone proteins: mediates dimethylation of 'Lys-373' of p53/TP53. Also methylates CDYL, WIZ, ACIN1, DNMT1, HDAC1, ERCC6, KLF12 and itself.

Tissue specificity

Expressed in all tissues examined, with high levels in fetal liver, thymus, lymph node, spleen and peripheral blood leukocytes and lower level in bone marrow.

Sequence similarities

Belongs to the class V-like SAM-binding methyltransferase superfamily. Histone-lysine methyltransferase family. Suvar3-9 subfamily.

Contains 7 ANK repeats.

Contains 1 post-SET domain.

Contains 1 pre-SET domain.

Contains 1 SET domain.

Domain

The SET domain mediates interaction with WIZ.

The ANK repeats bind H3K9me1 and H3K9me2.

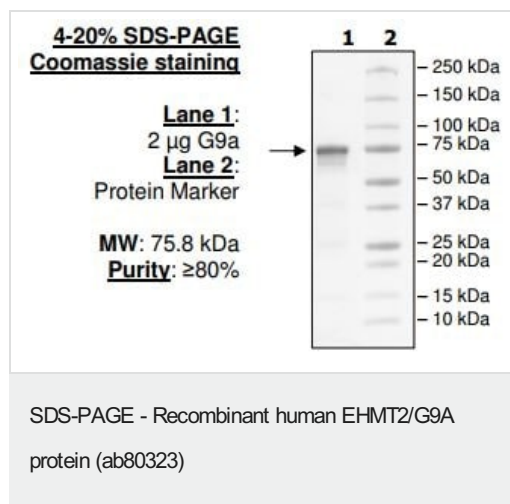
Post-translational modifications

Methylated at Lys-185; automethylated.

Cellular localization

Nucleus. Chromosome. Associates with euchromatic regions. Does not associate with heterochromatin.

Images



SDS-PAGE showing ab80323 at approximately 74.6kDa (5µg).

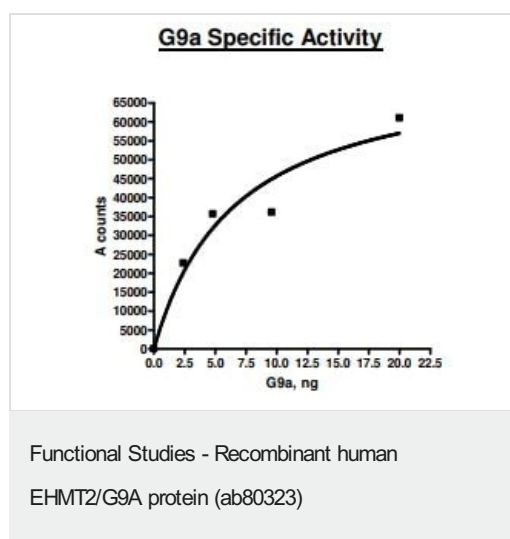


Image showing specific activity of ab80323.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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