

EHMT2 recombinant protein

Recombinant EHMT2 (G9a) protein

CATALOG # AAA59663	HOST Baculovirus
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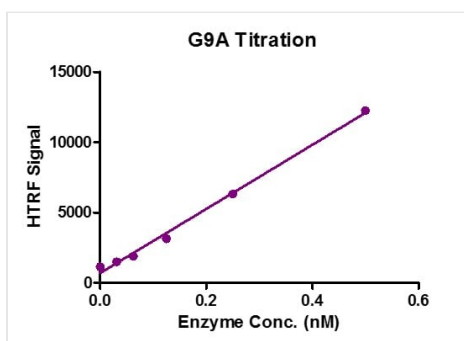
PRODUCT SYNONYMS

EHMT2; Recombinant EHMT2 (G9a) protein; BAT8; GAT8; NG36; KMT1C; C6orf30; EHMT2 recombinant protein

PRODUCT SPECIFICATIONS

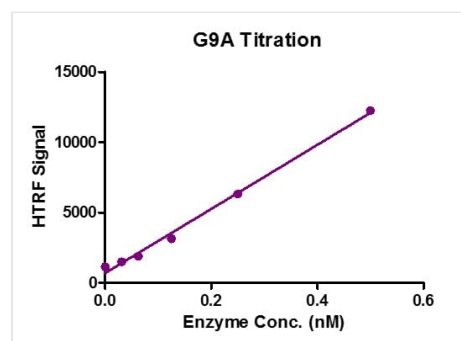
Host	Baculovirus
Purity/Purification	The recombinant protein is > 90 % pure by SDS-PAGE.
Form/Format	Full length recombinant EHMT2 (G9a) protein expressed in Sf9 cells and supplied in 25mM HEPES-NaOH pH7.5, 300mM NaCl, 10% glycerol, 0.04% Triton X-100, and 0.5mM TCEP.
Protein Species	Human
Tag	DYKDDDDK-Tag
Notes	Recombinant EHMT2 (G9A) protein is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling.
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80 degree C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. Shipping Temp: Dry Ice

IMAGES



Application Data

Recombinant EHMT2 (G9a) HTRF activity assay 1 ?M histone H3 (1-21aa.) peptide was incubated with different concentrations of Recombinant EHMT2 (G9A) protein in a 10 ?l reaction system containing 50 mM Tris-HCl pH 8.6, 0.02% Triton X-100, 2 mM MgCl₂, 1 mM TCEP and 50 ?M SAM for 3 hours, then 10 ?l anti-H3K9me2 antibody and SA-XL665 mixture (each 1:100 dilution in HTRF Detection Buffer) was added to each reaction system and incubated for 30 min. All the operations and reactions were performed at room temperature. HTRF assay was used for detection. Fluorescence intensity at 620 nm and 665 nm were measured respectively. The final HTRF signal was obtained by formula: HTRF signal = F665/F620*10000



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SDS-PAGE
 Recombinant EHMT2 (G9a) protein gel. EHMT2 (G9a) protein was run on an 10% SDS-PAGE gel and stained with Coomassie Blue. MW: 134 kDa Purity: > 90%

ADDITIONAL INFORMATION

Related Product Information for EHMT2 recombinant protein	Short Description: G9a is a histone methyltransferase that is specific to lysine 9 of histone H3 (H3K9). Methylation of H3K9 is a signal of transcriptional repression. Recombinant G9a protein (accession number NP_006700.3) was expressed in Sf9 cells and contains an N-terminal DYKDDDDK tag with a molecular weight of 134 kDa. G9a, also known as Euchromatic Histone-lysine N-methyltransferase 2 (EHMT2), is a histone methyltransferase that specifically mono- and dimethylates Lys9 of histone H3 (H3K9me1 and H3K9me2, respectively) in euchromatin. H3K9me represents a specific tag for epigenetic transcriptional repression by initiating recruitment of HP1 proteins to methylated histones. G9a also mediates monomethylation of Lys56 of histone H3 (H3K56me1) in G1 phase and regulates DNA replication by promoting the interaction between histone H3 and PCNA. G9a also weakly methylates Lys27 of histone H3 (H3K27me). In addition, G9a is required for DNA methylation. However, the histone methyltransferase activity is not required for DNA methylation, suggesting that these 2 activities function independently. G9a is most likely targeted to histone H3 by different DNA-binding proteins like E2F6, MGA, MAX and/or DP1. G9a may also methylate histone H1. In addition to histone methyltransferase activity, G9a also methylates non-histone proteins. It has been shown to mediate dimethylation of Lys373 of p53 and also methylates CDYL, WIZ, ACIN1, DNMT1, HDAC1, ERCC6, KLF12 and itself. Recombinant G9a can be used for enzyme kinetics and inhibitor screening studies. Background: EHMT2 (G9a) is a histone methyltransferase that specifically mono- and dimethylates Lys9 of histone H3 (H3K9me1 and H3K9me2, respectively) in euchromatin. H3K9me represents a specific tag for epigenetic transcriptional repression by initiating recruitment of HP1 proteins to methylated histones. EHMT2 (G9a) also mediates monomethylation of Lys56 of histone H3 (H3K56me1) in G1 phase and regulates DNA replication by promoting the interaction between histone H3 and PCNA. EHMT2 (G9a) also weakly methylates Lys27 of histone H3 (H3K27me). In addition, EHMT2 (G9a) is required for DNA methylation. However, the histone methyltransferase activity is not required for DNA methylation, suggesting that these 2 activities function independently. EHMT2 (G9a) is most likely targeted to histone H3 by different DNA-binding proteins like E2F6, MGA, MAX and/or DP1. EHMT2 (G9a) may also methylate histone H1. In addition to histone methyltransferase activity, EHMT2 (G9a) also methylates non-histone proteins. It has been shown to mediate dimethylation of Lys373 of p53 and also methylates CDYL, WIZ, ACIN1, DNMT1, HDAC1, ERCC6, KLF12 and itself.
Product Categories/Family for EHMT2 recombinant protein	Recombinant Proteins; Histone Methyltransferase (HMT)

NCBI AND UNIPROT INFORMATION

NCBI GI #	156142197
NCBI GeneID	10919
NCBI Accession #	NP_006700.3; NP_079532.5
NCBI GenBank Nucleotide #	NM_006709.4
UniProt Accession #	Q96KQ7; Q14349; Q5JP83; Q5JQ92; Q5JQA1; Q5JQG3; Q6PK06; Q96MH5; Q96QD0; Q9UQL8; Q9Y331; BOUZY2

Molecular Weight	132370
NCBI Official Full Name	histone-lysine N-methyltransferase EHMT2 isoform a
NCBI Official Synonym Full Names	euchromatic histone-lysine N-methyltransferase 2
NCBI Official Symbol	EHMT2
NCBI Official Synonym Symbols	G9A; BAT8; GAT8; NG36; KMT1C; C6orf30
NCBI Protein Information	histone-lysine N-methyltransferase EHMT2
UniProt Protein Name	Histone-lysine N-methyltransferase EHMT2
UniProt Gene Name	EHMT2
UniProt Synonym Gene Names	BAT8; C6orf30; G9A; KMT1C; NG36; H3-K9-HMTase 3
UniProt Entry Name	EHMT2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/ehmt2-recombinant-protein-baculovirus/59663>