Recombinant EHMT1 protein (His tag)

Catalog Number	545969
Synonyms	Euchromatic histone-lysine N-methyltransferase 1; Eu-HMTase1; G9a-like protein 1; GLP; GLP1; Histone H3-K9 methyltransferase 5; H3-K9-HMTase 5; Lysine N-methyltransferase 1D
Species	Human
Expression System	E. coli
Accession	Q9H9B1
Molecular Weight	Predictes a molecular mass of 15.48 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band.

Product Information

Sequence Region	520-643
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 520-643 aa (Q9H9B1) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant EHMT1 Fragment (520-643) is a high-purity, stable protein segment derived from human Histone-lysine N-methyltransferase EHMT1. This fragment is optimized for structural and biochemical studies, offering researchers a soluble and functional unit to explore epigenetic regulation mechanisms. Histone-lysine N-methyltransferase EHMT1 is a key epigenetic regulator in humans that catalyzes mono- and dimethylation of histone H3 at lysine 9 (H3K9me1 and H3K9me2), establishing transcriptional repression marks in euchromatin. It recruits HP1 proteins to methylated histones, contributes to DNA methylation, and participates in cell cycle regulation by silencing MYC- and E2F-responsive genes during G0 phase. Additionally, EHMT1 methylates non-histone substrates like p53/TP53 at Lys-373 and collaborates with BAZ2B to repress mitochondrial gene expression. The protein localizes to the nucleus and associates with euchromatic regions, underscoring its role in chromatin remodeling and gene silencing pathways.