

## Recombinant EHMT1 (894-1298) protein

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**Catalog No:** 31520, 31920

**Expressed In:** *E. coli*

**Quantity:** 50, 1000 µg

**Concentration:** 0.8 µg/µl

**Source:** Human

**Buffer Contents:** Recombinant EHMT1 (894-1298) protein is supplied at a concentration of 0.8 µg/µl in 25 mM Tris-HCl pH 8.0, 300 mM NaCl, 5% glycerol.

**Background:** EHMT1 (Euchromatic Histone Methyltransferase 1, EuHMT1, EuHMTase1, G9a like protein, GLP1) is a SET domain-containing histone methyltransferase specific for lysine 9 of histone H3. It is possible that this protein is involved in the silencing of Myc and E2F-responsive genes and thus could play a role in regulating cell cycle transitions from G0 to G1.

**Protein Details:** Recombinant EHMT1 (894-1298) protein that includes amino acids 894-1298 of human EHMT1 protein (accession number NP\_079033.4) was expressed in *E. coli* and contains an N-terminal GST-Tag with a molecular weight of 79.1 kDa. The purity of the protein is > 85% by SDS-PAGE.

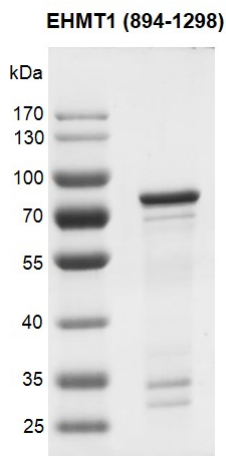
**Application Notes:** Recombinant EHMT1 protein is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling.

**HMT Assay Conditions:** 3 µM H3 (1-21) peptide was incubated with different concentrations of EHMT1 (894-1298) protein in 10 µl reaction system containing 50 mM Tris-HCl pH 8.6, 0.02% Triton X-100, 2 mM MgCl<sub>2</sub>, 1 mM TCEP and 50 µM SAM for 3 hours, then 10 µl H3K9me<sub>2</sub> 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.

### References:

This product was used in the following publications:  
*Sci. Rep.* (2019). Jan 25;9(1):767. PMID: 30683882

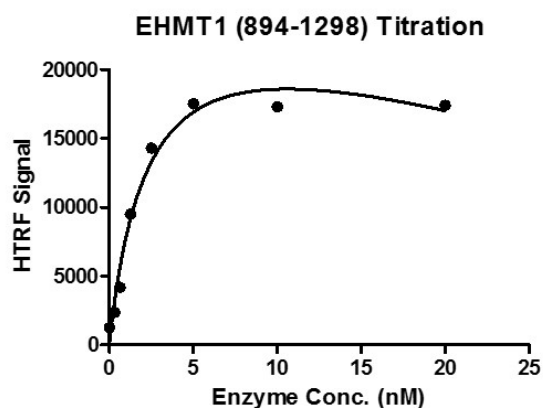
**Storage and Guarantee:** Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.



**Recombinant EHMT1 (894-1298) SDS-PAGE gel.** Recombinant EHMT1 was run on a 10% SDS-PAGE gel and stained with Coomassie Blue.

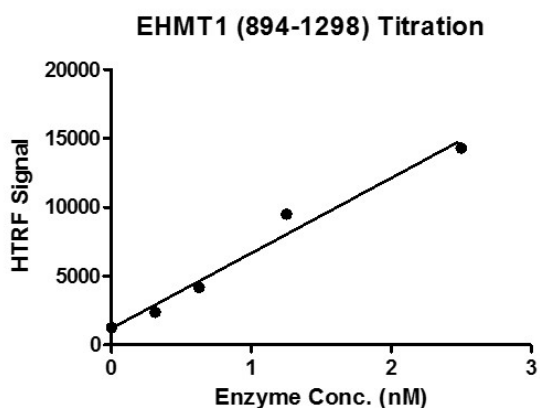
MW: 79.1 kDa

Purity: > 85%



**HTRF assay for EHMT1 (894-1298) activity**

3  $\mu$ M histone peptide H3 (1-21) was incubated with EHMT1 (894-1298) in reaction buffer for 3 hours at room temperature. H3K9me2 antibody was used to detect reaction product.



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