

Certificate of Analysis

EHMT1

Euchromatic histone-lysine N-methyltransferase 1, active

(Recombinant enzyme expressed in *E.coli*)

Item # EPI020

Lot # 139719

Product Description: recombinant human EHMT1, amino acids 951-1235, expressed in *E.coli*. Purified using immobilised metal affinity chromatography.
MW = 32.9kDa.

Tag cleaved y Thrombin

Formulation: 1mg/ml of enzyme in 5mM Tris/HCl pH7.4, 250mM NaCl, 50% Glycérol. Frozen solution.

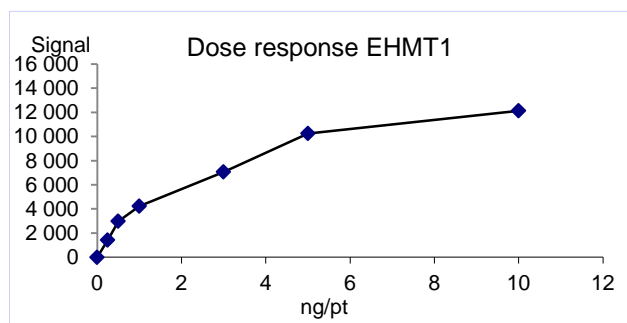
Storage and Stability: Stable for 1 year at -70°C from date of shipment. For maximum recovery of product, centrifuge original vial prior to removing the cap.

Handling Recommendations: Rapidly thaw the vial under cold water and immediately place on ice. Aliquot unused material into pre-chilled microcentrifuge tubes and store at -70°C.

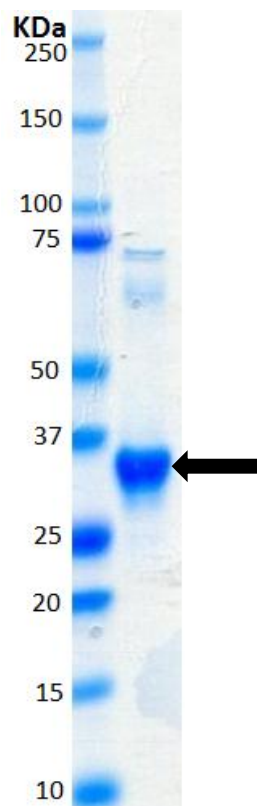
**FOR IN VITRO RESEARCH USE ONLY
NOT FOR USE IN HUMANS OR ANIMALS**

Quality Control Testing

HMT Assay: 0.25–10ng of this lot of enzyme transferred methyl groups from [3H] SAM to Histone H3 in the assay described on page two. Assay background was subtracted from the actual counts to yield the results shown below.



MS: Size was confirmed by mass spectrometry using a Q-TOF.



SDS-PAGE and Coomassie Stain: Purity was assessed by SDS-PAGE and Coomassie blue staining using 4µg of active EHMT1.

Certificate of Analysis

EHMT1 Assay Protocol

Stock Solutions:

1. **Reaction buffer:** 50mM Tris/HCl pH9, 50mM NaCl, 5mM MgCl₂, 4mM DTT.
2. **EHMT1:** Dilute with reaction buffer. Use 0.25–10ng per assay point.
3. **H3 Histone:** Dilute with reaction buffer to 50nM.
4. **[3H] SAM:** Dilute with reaction buffer to 50nM.
5. **Filtration Buffer :** 33mM Citric acid pH2.2

Assay Procedure (96 well plate format):

1. Add 5µl of 10% DMSO per assay to each well.
2. Add 25µl of [3H] SAM.
3. Add 10µl (**0.25-10ng**) **EHMT1**.
4. Add 10µl of Histone H3.
5. Incubate for 120 minutes at 22°C.
6. Stop the reaction by adding 500µl of citric acid, then filter on a GF/B Filter. Wash 3 times with filtration buffer.
7. Dry and add scintillation cocktail.
8. Read in a scintillation counter. Compare the signal of enzyme samples with that of a background sample that contains all assay components except the enzyme EHMT1.

EHMT1 Sequence Information

Protein Human EHMT1
Tags *Tag cleaved by Thrombin*
Accession number GenBank AAM09024.1

Recombinant EHMT1 amino acid sequence:

1 GSNSQVWSAL QMSKALQDSA PDRPSPVERI VSRDIARGYE RIPIPCVNAV
51 DSEPCPSNYK YVSQNCVTSP MNIDRNITHL QYCVCIDDCS SSNCMCGQLS
101 MRCWYDKDGR LLPEFNMAEP PLIFECNHAC SCWRNCRNRV VQNGLRARLQ
151 LYRTRDMGWG VRSLQDIPPG TFWCEYVGEL ISDSEADVRE EDSYLFDLDN
201 KDGEVYCIDA RFYGNVSRFI NHHCEPNLVP VRVFMAHQDL RFPRIAFFST
251 RLIEAGEQLG FDYGERFWDI KGKLFSCRCG SPKCRHS

Reviewed and approved by site quality representative.

Unless otherwise stated in our catalogue or other company documentation accompanying the product(s), our products are intended for research use only and are not to be used for any other purpose, which includes but is not limited to, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses or any type of consumption or application to humans or animals.

© 2014 Eurofins Pharma Discovery Services UK Limited is an independent member of Eurofins Discovery Services.