

## Certificate of Analysis

### PRMT1

#### Protein arginine N-methyltransferase 1

(Recombinant enzyme expressed in *E.coli*)

Item # EPI053

Lot # 140440

**Product Description:** N-terminal, 6His-tagged recombinant human PRMT1, amino acids 30-371, expressed in *E.coli*. Purified using immobilised metal affinity chromatography. MW = 41.8kDa.

**Aliases :** HMT2, HRMT1L2, IR1B4

**Formulation:** 0.54mg/ml of enzyme in 25mM Tris/HCl pH8.0, 75mM NaCl, 50% Glycerol. Frozen solution.

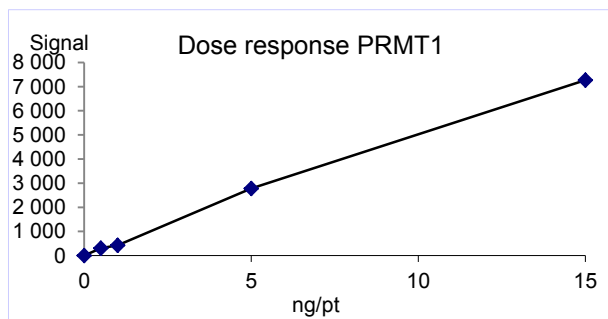
**Storage and Stability:** Stable for 1 year at -70°C from date of shipment. For maximum recovery of product, centrifuge original vial prior to removing the cap.

**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.

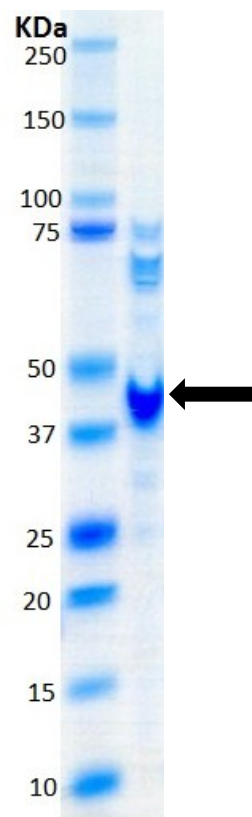
**FOR IN VITRO RESEARCH USE ONLY  
NOT FOR USE IN HUMANS OR ANIMALS**

### Quality Control Testing

**HMT Assay:** 0.5-15ng of this lot of enzyme transfer methyl groups from [3H] SAM to Histone H4 full length human 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 PRMT1.

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### PRMT1 Assay Protocol

#### Stock Solutions:

1. **Reaction buffer:** 50mM Tris/HCl pH8.0, 50mM NaCl, 5mM MgCl<sub>2</sub>, 4mM DTT.
2. **PRMT1, active:** Dilute with reaction buffer. Use 0.5-15ng per assay point.
3. **Histone H4 full length human:** Dilute with reaction buffer to 125nM.
4. **[3H] SAM:** Dilute with reaction buffer to 120nM.
5. **Filtration Buffer :** 33mM Citric acid pH2.2

#### Assay Procedure (96 well plate format):

1. Add 5µl of 10% DMSO per assay to wells.
2. Add 25µl of [3H] SAM.
3. Add 10µl (**0.5-15ng**) **PRMT1, active**.
4. Add 10µl of Histone H4 full length human.
5. Incubate for 90 minutes at 22°C.
6. Stop the reaction by adding 500µl of citric acid, then filtrate on a GF/B Filter. Wash 3 times with filtration buffer.
7. Dry and add scintillation cocktail.
8. Read in a scintillation counter. Compare signal of enzyme samples with that of a background that contain all assay components except enzyme PRMT1.

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### PRMT1 Sequence Information

<b><u>Protein</u></b>	Human PRMT1
<b><u>Tags</u></b>	N-Terminal 6His
<b><u>Accession number</u></b>	GenBank NP_001527.3

#### ***Recombinant PRMT1 amino acid sequence:***

1 MHHHHHSSG RENLYFQGME VSCGQAESSE KPNAEDMTSK DYYFDSYAHF  
51 GIHEEMLKDE VRTLTYRNSM FHNRLFKDK VVLDVGSSTG ILCMFAAKAG  
101 ARKVIIECS SISDYAVKIV KANKLDHVVT IIKGKVEEVE LPVEKVDIII  
151 SEWMGYCLFY ESMLNTVLYA RDKWLAPDGL IFPDRATLYV TAIEDRQYKD  
201 YKIHWWENVY GDMSCIKDV AIKEPLVDVV DPKQLVTNAC LIKEVDIYTV  
251 KVEDLTFTSP FCLQVCRNDY VHALVAYFNI EFTRCHKRTG FSTSPESPYT  
301 HWKQTVFYME DYLTVKTGEE IFGTIGMRPN AKNNRDLDFD IDLDFKGGQLC  
351 ELSCSTDYRM R

Reviewed and approved by site quality representative.

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