

## Certificate of Analysis

### SUV39H2

**Human Suppressor of variegation 3-9 homolog 2, methyltransferase domain**  
(Recombinant enzyme expressed in *E.coli*)

Item # EPI065

Lot # 142840

**Product Description:** recombinant human SUV39H2, amino acids 114-410, expressed in *E.coli*. Purified using immobilised metal affinity chromatography.  
MW = 34kDa.

**Formulation:** 1mg/ml of enzyme in 5mM Tris/HCl pH7.5, 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.

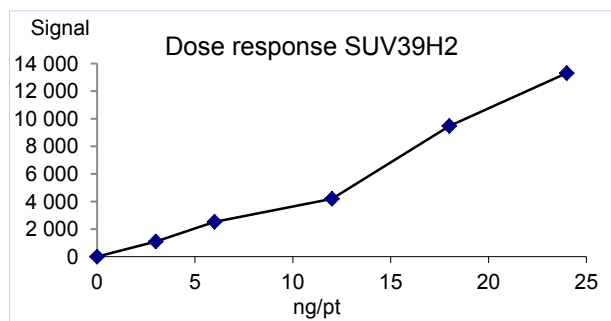
**Tag cleaved by Thrombin.**

**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.

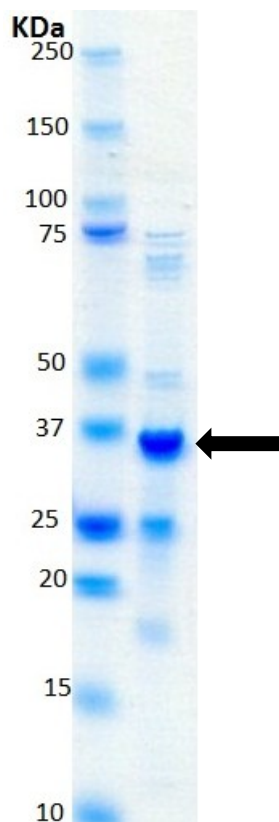
**FOR IN VITRO RESEARCH USE ONLY  
NOT FOR USE IN HUMANS OR ANIMALS**

### Quality Control Testing

**HMT Assay:** 3-24ng of this lot of enzyme transferred methyl groups from [3H] SAM to histone H3 full length 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 SUV39H2.

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### SUV39H2 Assay Protocol

#### Stock Solutions:

1. **Reaction buffer:** 50mM Tris/HCl pH9, 5mM MgCl<sub>2</sub>, 50mM NaCl, 4mM DTT.
2. **SUV39H2:** Dilute with reaction buffer. Use 3-24ng per assay point.
3. **Histone H3 full length:** Dilute with reaction buffer to 2.5µg/ml.
4. **[3H] SAM:** Dilute with SAM solution (630nM) to 70nM.
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 (**3-24ng**) SUV39H2.
4. Add 10µl of Histone H3 full length.
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 SUV39H2.

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### SUV39H2 Sequence Information

**Protein** Human SUV39H2  
**Tags** Tag cleaved by Thrombin  
**Accession number** NP\_001180353.1

#### ***Recombinant SUV39H2 amino acid sequence:***

1 GSPKDNNKTL KPAIAEYIVK KAKQRIALQR WQDELNRRKN HKGMIFVENT  
51 VDLEGPSPDF YYINEYKPAP GISLVNEATF GCSCTDCFFQ KCCPAEAGVL  
101 LAYNKNQQIK IPPGTPIYEC NSRCQCGPDC PNRIVQKGTQ YSLCIFRTSN  
151 GRGWGVKTLV KIKRMSFVME YVGEVITSEE AERRGQFYDN KGITYLFDLD  
201 YESDEFTVDA ARYGNVSHFV NHSCDPNLQV FNVFIDNLDL RLPRIALFST  
251 RTINAGEELT FDYQMKGSGD ISSDSIDHSP AKKRVRTVCK CGAVTCRGYL  
301 N

Reviewed and approved by site quality representative.

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