

Certificate of Analysis

SUV4-20H2

Human Suppressor of variegation 4-20 homolog 2, methyltransferase domain, active

(Recombinant enzyme expressed in *E.coli*)

Item # EPI067

Lot # 139687

Product Description: recombinant human SUV4-20H2, amino acids 2-248, expressed in *E.coli*. Purified using immobilised metal affinity chromatography. MW = 28.1kDa.

Formulation: 1mg/ml of enzyme in 5mM Tris/HCl pH7.5, 250mM NaCl, 1.1mM DTT, 50% Glycérol. Frozen solution.

Tag cleaved by TEV.

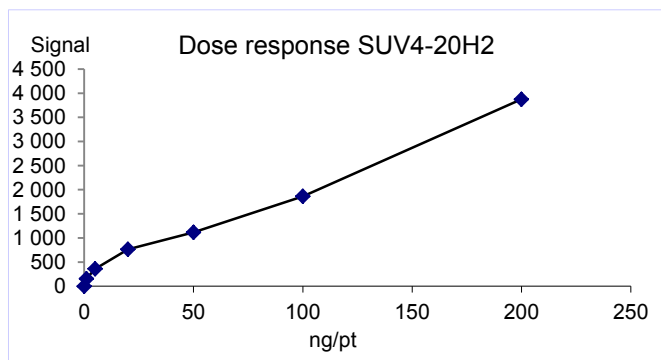
Storage and Stability: Stable for 1 year at -70°C from date of shipment. For maximum recovery of product, centrifuge original vial prior to removing the cap.

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.

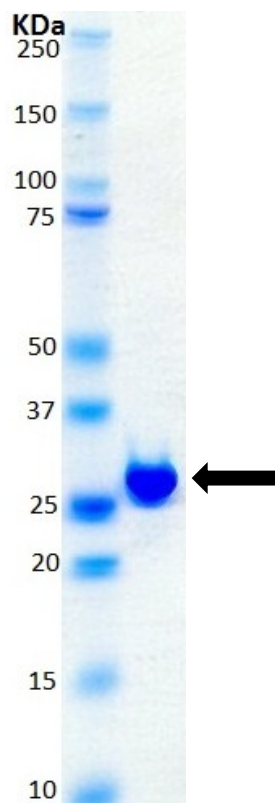
**FOR IN VITRO RESEARCH USE ONLY
NOT FOR USE IN HUMANS OR ANIMALS**

Quality Control Testing

HMT Assay: 1-200ng of this lot of enzyme transfer methyl groups from [3H] SAM to nucleosome 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 SUV4-20H2.

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SUV4-20H2 Assay Protocol

Stock Solutions:

1. **Reaction buffer:** 50mM Tris/HCl pH7.4, 5mM DTT, 0.01% Triton.
2. **SUV4-20H2, active:** Dilute with reaction buffer. Use 1-200ng per assay point.
3. **Nucleosome:** Dilute with reaction buffer to 7.5µg/ml.
4. **[3H] SAM:** Dilute with reaction buffer to 150nM.
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 (**1-200ng**) **SUV4-20H2, active**.
4. Add 10µl of Nucleosome.
5. Incubate for 15 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 SUV4-20H2.

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SUV4-20H2 Sequence Information

Protein Human SUV4-20H2

Tags Tag cleaved by TEV

Accession number NP_116090.2

Recombinant SUV4-20H2 amino acid sequence:

1 GGPDRV TARE LCENDDLATS LVLDPYLGFR THKMNVS PVP PLRRQQLRS
51 ALETFLRQRD LEAAYRALTL GGWTARYFQS RGPRQEAALK THVYRYLRAF
101 LPESGFTILP CTRYSMETNG AKIVSTRAWK KNEKLELLVG CIAELREADE
151 GLLRAGENDF SIMYSTRKRS AQLWLGPAAF INHDCKPNCK FVPADGNAAC
201 VKVLRDIEPG DEVTCFYGEG FFGKNEHCE CHTCERKGE G AFTRRPRE

Reviewed and approved by site quality representative.

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