

Recombinant SUV420H2 (2-281) protein

Catalog No: 81014, 81716

Lot No: 15017001

Expressed In: *E. coli*

Quantity: 50, 1000 µg

Concentration: 1 µg/µl

Source: Human

Buffer Contents: Recombinant SUV420H2 (2-281) protein is supplied at a concentration of 1 µg/µl in 25 mM Tris pH 8.0, 300 mM NaCl, 5% glycerol.

Background: SUV420H2 (Suppressor Of Variegation 4-20 Homolog 2, also known as KMT5C) is a histone methyltransferase that specifically trimethylates nucleosomal histone H4 on lysine 20 (H4K20). H4K20me3 is a histone marker that represents epigenetic transcriptional repression. SUV420H2 mainly functions in pericentric heterochromatin regions, thereby playing a central role in the establishment of constitutive heterochromatin in these regions. SUV420H2 is targeted to histone H3 via its interaction with RB1 family proteins.

Protein Details: Recombinant SUV420H2 (2-281) protein corresponding to amino acids 2-281 of SUV420H2 protein (accession number NP_116090.2) was expressed in *E. coli* cells and contains an N-terminal GST tag with a molecular weight of 58.1 kDa. Recombinant SUV420H2 (2-281) protein contains the SET domain of SUV420H2 that is responsible for methyltransferase activity.

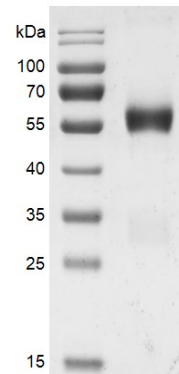
Application Notes: Recombinant SUV420H2 (2-281) is suitable for use in the study of enzyme kinetics, inhibitor screening and selectivity profiling.

Specific Activity: H4K20 methyltransferase activity.

HMT Assay Conditions: Recombinant SUV420H2 (2-281) activity assay 2 µg Recombinant Nucleosomes (H3.1) (Cat. No. 31466) were incubated with 0 µg (-), 0.2 µg (+), 0.4 µg (++) , 0.8 µg (+++) SUV420H2 (2-281) protein, respectively, in 30 µl reaction system containing 50 mM Tris-HCl, pH 8.6, 0.02% Triton X-100, 2 mM MgCl₂, 1 mM TCEP, 50 µM SAM for 3 hr at room temperature. 6 µl reaction products were loaded and run on a 12.5% SDS-PAGE gel. Western Blot was used to detect the generation of reaction products (Anti-H4K20me3, Cat. No. 39672, 1:1000 dilution). SUV420H2 (2-281) only was used as negative control. H4 was used as loading control.

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.

SUV420H2 (2-281)

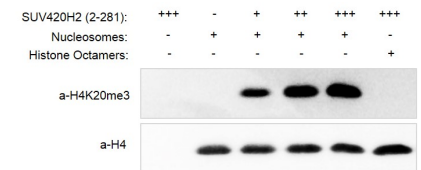


Recombinant SUV420H2 (2-281) protein

10% SDS-PAGE Coomassie staining

MW: 58.1 kDa

Purity: > 90%



Recombinant SUV420H2 (2-281) activity assay

Recombinant Nucleosomes (H3.1) were incubated with SUV420H2 (2-281) protein. Reaction products were run on SDS-PAGE, and detected by Western Blot using Anti-H4K20me3. Results show the activity of SUV420H2 (2-281) with nucleosomes as substrate is better than with histone octamers.