

SUV420H2 Protein, Human (His)

Cat. No.:	HY-P77218
Synonyms:	Histone-lysine N-methyltransferase KMT5C; KMT5C; PP7130
Species:	Human
Source:	E. coli
Accession:	Q86Y97 (G2-L280)
Gene ID:	84787
Molecular Weight:	Approximately 60 kDa

PROPERTIES

AA Sequence	<p>G P D R V T A R E L C E N D D L A T S L V L D P Y L G F R T H K M N V S P V P P</p> <p>L R R Q Q H L R S A L E T F L R Q R D L E A A Y R A L T L G G W T A R Y F Q S R</p> <p>G P R Q E A A L K T H V Y R Y L R A F L P E S G F T I L P C T R Y S M E T N G A</p> <p>K I V S T R A W K K N E K L E L L V G C I A E L R E A D E G L L R A G E N D F S</p> <p>I M Y S T R K R S A Q L W L G P A A F I N H D C K P N C K F V P A D G N A A C V</p> <p>K V L R D I E P G D E V T C F Y G E G F F G E K N E H C E C H T C E R K G E G A</p> <p>F R T R P R E P A L P P R P L D K Y Q L R E T K R R L Q Q G L D S G S R Q G L</p>
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of 50 mM Tris-HCL, 500 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>SUV420H2 Protein, a histone methyltransferase, exhibits specificity in methylating monomethylated 'Lys-20' (H4K20me1) and dimethylated 'Lys-20' (H4K20me2) of histone H4, producing trimethylated 'Lys-20' (H4K20me3) and dimethylated 'Lys-20' (H4K20me2), thus contributing to the regulation of transcription and maintenance of genome integrity. In vitro, it also demonstrates the ability to methylate unmodified 'Lys-20' (H4K20me0) of histone H4 and nucleosomes. H4 'Lys-20' trimethylation serves as a specific epigenetic tag associated with transcriptional repression. Operating predominantly in</p>
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pericentric heterochromatin regions, SUV420H2 plays a central role in establishing constitutive heterochromatin in these genomic areas. Targeted to histone H3 through interaction with RB1 family proteins (RB1, RBL1, and RBL2), the enzyme facilitates TP53BP1 foci formation upon DNA damage, promoting proficient non-homologous end-joining (NHEJ)-directed DNA repair through the di- and trimethylation of 'Lys-20' of histone H4. Additionally, it may contribute to class switch recombination by catalyzing the di- and trimethylation of 'Lys-20' of histone H4 (By similarity).

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA