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SUV4-20H2 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6511C

Product Information

Application	WB, FC, E
Primary Accession	Q86Y97
Other Accession	P0C2N6, Q6Q783
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	52113
Antigen Region	195-220

Additional Information

Gene ID	84787
Other Names	Histone-lysine N-methyltransferase SUV420H2, Lysine N-methyltransferase 5C, Suppressor of variegation 4-20 homolog 2, Su(var)4-20 homolog 2, Suv4-20h2, SUV420H2, KMT5C
Target/Specificity	This SUV4-20H2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 187-214 amino acids of human SUV4-20H2.
Dilution	WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SUV4-20H2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	KMT5C (HGNC:28405)
Synonyms	SUV420H2

Function	Histone methyltransferase that specifically methylates monomethylated 'Lys-20' (H4K20me1) and dimethylated 'Lys-20' (H4K20me2) of histone H4 to produce respectively dimethylated 'Lys-20' (H4K20me2) and trimethylated 'Lys-20' (H4K20me3) and thus regulates transcription and maintenance of genome integrity (PubMed:24396869, PubMed:28114273). In vitro also methylates unmodified 'Lys-20' (H4K20me0) of histone H4 and nucleosomes (PubMed:24396869). H4 'Lys-20' trimethylation represents a specific tag for epigenetic transcriptional repression. Mainly functions in pericentric heterochromatin regions, thereby playing a central role in the establishment of constitutive heterochromatin in these regions. KMT5C is targeted to histone H3 via its interaction with RB1 family proteins (RB1, RBL1 and RBL2) (By similarity). Facilitates TP53BP1 foci formation upon DNA damage and proficient non-homologous end-joining (NHEJ)-directed DNA repair by catalyzing the di- and trimethylation of 'Lys-20' of histone H4 (PubMed:28114273). May play a role in class switch reconbination by catalyzing the di- and trimethylation of 'Lys-20' of histone H4 (By similarity).
Cellular Location	Nucleus. Chromosome. Note=Associated with pericentric heterochromatin. CBX1 and CBX5 are required for the localization to pericentric heterochromatin (By similarity).

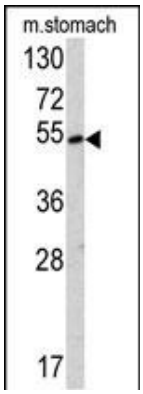
Background

SUV420H2 is a histone methyltransferase that specifically trimethylates 'Lys-20' of histone H4. H4 'Lys-20' trimethylation represents a specific tag for epigenetic transcriptional repression. The protein mainly functions in pericentric heterochromatin regions, thereby playing a central role in the establishment of constitutive heterochromatin in these regions. SUV420H1 is targeted to histone H3 via its interaction with RB1 family proteins (RB1, RBL1 and RBL2).

References

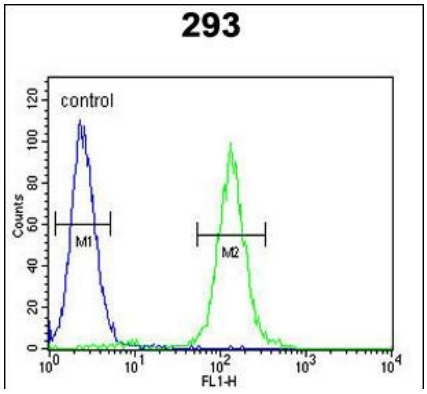
Souza,P.P., BMC Cell Biol. 10, 41 (2009)
Tryndyak,V.P., Cancer Biol. Ther. 5 (1), 65-70 (2006)

Images



Western blot analysis of SUV4-20H2 antibody (Center) (Cat.# AP6511c) in mouse stomach tissue lysates (35ug/lane). SUV4-20H2 (arrow) was detected using the purified Pab.

SUV4-20H2 Antibody (Center) (Cat. #AP6511c) flow cytometric analysis of 293 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Citations

- Regulation of Skeletal Muscle Stem Cell Quiescence by Suv4-20h1-Dependent Facultative Heterochromatin Formation.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.