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SUV4-20H2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12073a

Product Information

Application	WB, E
Primary Accession	Q86Y97
Other Accession	NP_116090.2
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB14359
Calculated MW	52113
Antigen Region	60-99

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 60-90 amino acids of human SUV4-20H2.
Dilution	WB~~1:1000 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 (N-term) 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).

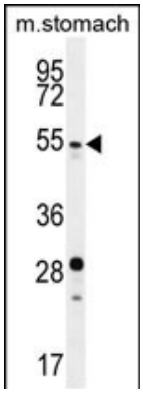
Background

SUV420H2 and the related enzyme SUV420H1 (MIM 610881) function as histone methyltransferases that specifically trimethylate nucleosomal histone H4 (see MIM 602822) on lysine-20 (K20) (Schotta et al., 2004 [PubMed 15145825]).

References

Stolk, L., et al. Nat. Genet. (2009) In press :
Souza, P.P., et al. BMC Cell Biol. 10, 41 (2009) :
Yang, H., et al. J. Biol. Chem. 283(18):12085-12092(2008)
Szafranski, K., et al. Genome Biol. 8 (8), R154 (2007) :
Tryndyak, V.P., et al. Cancer Biol. Ther. 5(1):65-70(2006)

Images



SUV4-20H2 Antibody (N-term) (Cat. #AP12073a) western blot analysis in mouse stomach tissue lysates (35ug/lane).This demonstrates the SUV4-20H2 antibody detected the SUV4-20H2 protein (arrow).