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SUV4-20H1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12072b

Product Information

Application	WB, FC, E
Primary Accession	Q4FZB7
Other Accession	NP_060105.3, NP_057112.3
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB14358
Calculated MW	99188
Antigen Region	4-20

Additional Information

Gene ID	51111
Other Names	Histone-lysine N-methyltransferase SUV420H1, Lysine N-methyltransferase 5B, Suppressor of variegation 4-20 homolog 1, Su(var)4-20 homolog 1, Suv4-20h1, SUV420H1, KMT5B
Target/Specificity	This SUV4-20H1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 759-789 amino acids from the C-terminal region of human SUV4-20H1.
Dilution	WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. 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	SUV4-20H1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	KMT5B (HGNC:24283)
Synonyms	SUV420H1

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. KMT5B is targeted to histone H3 via its interaction with RB1 family proteins (RB1, RBL1 and RBL2) (By similarity). Plays a role in myogenesis by regulating the expression of target genes, such as EID3 (PubMed:23720823). 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).

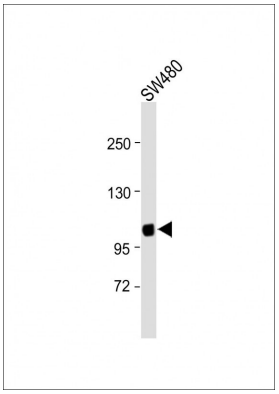
Background

This gene encodes a protein that contains a SET domain. SET domains appear to be protein-protein interaction domains that mediate interactions with a family of proteins that display similarity with dual-specificity phosphatases (dsPTPases). The function of this gene has not been determined. Two alternatively spliced transcript variants have been found for this gene.

References

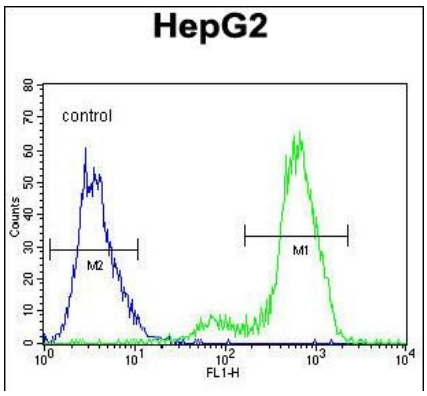
Chinenov, Y., et al. Proc. Natl. Acad. Sci. U.S.A. 105(51):20185-20190(2008)
Yang, H., et al. J. Biol. Chem. 283(18):12085-12092(2008)
Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007) :
Tryndyak, V.P., et al. Cancer Biol. Ther. 5(1):65-70(2006)
Twells, R.C., et al. Genomics 72(3):231-242(2001)

Images



All lanes : Anti-SUV4-20H1 Antibody (C-term) at 1:1000 dilution Lane 1: SW480 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 105kDa Blocking/Dilution buffer: 5% NFDM/TBST.

SUV4-20H1 Antibody (C-term) (Cat. #AP12072b) flow cytometric analysis of HepG2 cells (right histogram) compared to a negative control cell (left



histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.