

KMT5C Rabbit pAb

Catalog # AP98370

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q86Y97
Other Accession	Q86Y97
Predicted	Rat, Human, Mouse, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	52113
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human KMT5C
Epitope Specificity	101-200/462
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the class V-like SAM-binding methyltransferase superfamily. Histone-lysine methyltransferase family. Suvar4-20 subfamily.
SUBUNIT	Interacts with HP1 proteins CBX1, CBX3 and CBX5. Interacts with RB1 family proteins RB1, RBL1 and RBL2 (By similarity). {ECO:0000250}.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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]).[supplied by OMIM, Dec 2009]

Additional Information

Gene ID	84787
Other Names	SUV420H2; Suv4-20h2; KMT5C_HUMAN; KMT5C; Lysine N-methyltransferase 5C; Lysine-specific methyltransferase 5C; Suppressor of variegation 4-20 homolog 2 (Su(var)4-20 homolog 2 Suv4-20h2); [histone H4]-N-methyl-L-lysine20 N-methyltransferase KMT5B; [histone H4]-lysine20 N-methyltransferase KMT5B; KMT5C_MOUSE; lysine methyltransferase 5C; suppressor of variegation 4-20 homolog 2 (Drosophila); lysine (K)-specific methyltransferase 5C
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:500 0-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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 recombination 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).

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