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KMT1B Polyclonal Antibody

Catalog # AP70670

Product Information

Application	WB, E, IHC-P
Primary Accession	Q9H5I1
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	46682

Additional Information

Gene ID	79723
Other Names	SUV39H2; KMT1B; Histone-lysine N-methyltransferase SUV39H2; Histone H3-K9 methyltransferase 2; H3-K9-HMTase 2; Lysine N-methyltransferase 1B; Suppressor of variegation 3-9 homolog 2; Su(var)3-9 homolog 2
Dilution	WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/40000. Not yet tested in other applications. E~~N/A IHC-P~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

Name	SUV39H2
Synonyms	KMT1B
Function	Histone methyltransferase that specifically mediates trimethylation of 'Lys-9' of histone H3 (H3K9me3) using monomethylated H3 'Lys-9' (H3K9me1) as substrate (PubMed:10949293). H3 'Lys-9' trimethylation represents a specific tag for epigenetic transcriptional repression by recruiting HP1 (CBX1, CBX3 and/or CBX5) proteins to methylated histones (PubMed:10949293). Mainly functions in heterochromatin regions, thereby playing a central role in the establishment of constitutive heterochromatin at pericentric and telomere regions (PubMed:10949293). H3 'Lys-9' trimethylation is also required to direct DNA methylation at pericentric repeats (PubMed:10949293, PubMed:41094145). SUV39H2 is targeted to histone H3 via its interaction with RB1 and is involved in many processes, such as cell cycle regulation, transcriptional repression and regulation of telomere length (PubMed:14765126). May participate in regulation of higher-order chromatin organization during spermatogenesis (By similarity). Recruited by the large

PER complex to the E-box elements of the circadian target genes such as PER2 itself or PER1, contributes to the conversion of local chromatin to a heterochromatin-like repressive state through H3 'Lys-9' trimethylation (By similarity).

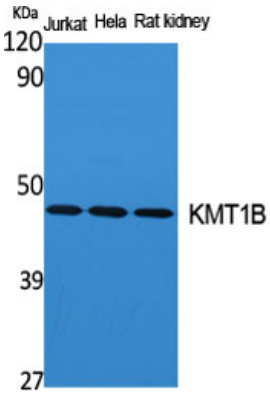
Cellular Location

Nucleus. Chromosome. Chromosome, centromere {ECO:0000250|UniProtKB:Q9EQQ0}. Note=Associates with centromeric constitutive heterochromatin (By similarity). Recruited to pericentromeric heterochromatin via its chromo domain, which specifically recognizes and binds histone H3 monoubiquitinated at 'Lys- 14' (H3K14ub) (PubMed:41094145). {ECO:0000250|UniProtKB:Q9EQQ0, ECO:0000269|PubMed:41094145}

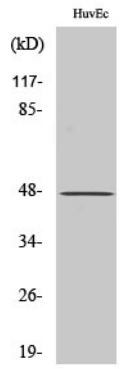
Background

Histone methyltransferase that specifically trimethylates 'Lys-9' of histone H3 using monomethylated H3 'Lys- 9' as substrate. H3 'Lys-9' trimethylation represents a specific tag for epigenetic transcriptional repression by recruiting HP1 (CBX1, CBX3 and/or CBX5) proteins to methylated histones. Mainly functions in heterochromatin regions, thereby playing a central role in the establishment of constitutive heterochromatin at pericentric and telomere regions. H3 'Lys-9' trimethylation is also required to direct DNA methylation at pericentric repeats. SUV39H1 is targeted to histone H3 via its interaction with RB1 and is involved in many processes, such as cell cycle regulation, transcriptional repression and regulation of telomere length. May participate in regulation of higher-order chromatin organization during spermatogenesis. Recruited by the large PER complex to the E-box elements of the circadian target genes such as PER2 itself or PER1, contributes to the conversion of local chromatin to a heterochromatin-like repressive state through H3 'Lys-9' trimethylation.

Images



Western Blot analysis of various cells using KMT1B Polyclonal Antibody cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003,Inventbiotech,MN,USA).



Western Blot analysis of COLO205 cells using KMT1B Polyclonal Antibody cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003,Inventbiotech,MN,USA).

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