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KMT1B / SUV39H2 Antibody

Rabbit mAb
Catalog # AP91826

Product Information

Application	WB, IHC, IP
Primary Accession	Q9H5I1
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	H3 K9 HMTase 2; KMT1B; Su(var)3 9 homolog 2; Suv39h2;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	46682

Additional Information

Dilution	WB 1:500~1:1000 IHC 1:50~1:200 IP 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human KMT1B / SUV39H2
Description	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.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

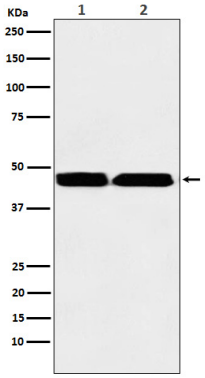
Name	SUV39H2
Synonyms	KMT1B
Function	Histone methyltransferase that specifically mediates trimethylation of 'Lys-9' of histone H3 (H3K9me3) using monomethylated H3 'Lys-9' (H3K9me1) as substrate (PubMed:10949293). H3 'Lys-9' trimethylation represents a specific tag for epigenetic transcriptional repression 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}

Images



Western blot analysis of KMT1B / SUV39H2 expression in (1) MOLT-4 cell lysate; (2) Human testis lysate.

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