

SUV39H1 antibody

Product Information

Catalog No.:	FNab08404
Size:	100µg
Form:	liquid
Purification:	Immunogen affinity purified
Purity:	≥95% as determined by SDS-PAGE
Host:	Rabbit
Clonality:	polyclonal
Clone ID:	None
IsoType:	IgG
Storage:	PBS with 0.02% sodium azide and 50% glycerol pH 7.3, -20°C for 12 months(Avoid repeated freeze / thaw cycles.)

Background

Histone methyltransferase that specifically trimethylates 'Lys-9' of histone H3 using monomethylated H3 'Lys-9' as substrate. Also weakly methylates histone H1(in vitro). 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 repression of MYOD1-stimulated differentiation, regulation of the control switch for exiting the cell cycle and entering differentiation, repression by the PML-RARA fusion protein, BMP-induced repression, repression of switch recombination to IgA and regulation of telomere length. Component of the eNoSC(energy-dependent nucleolar silencing) complex, a complex that mediates silencing of rDNA in response to intracellular energy status and acts by recruiting histone-modifying enzymes. The eNoSC complex is able to sense the energy status of cell: upon glucose starvation, elevation of NAD(+)/NADP(+) ratio activates SIRT1, leading to histone H3 deacetylation followed by dimethylation of H3 at 'Lys-9'(H3K9me2) by SUV39H1 and the formation of silent chromatin in the rDNA locus. 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.

Immunogen information

Immunogen: suppressor of variegation 3-9 homolog 1(Drosophila)

Synonyms:	Histone-lysine N-methyltransferase SUV39H1 Histone H3-K9 methyltransferase 1 (H3-K9-HMTase 1) Lysine N-methyltransferase 1A Position-effect variegation 3-9 homolog Suppressor of variegation 3-9 homolog 1 (Su(var)3-9 homolog 1) SUV39H1 KMT1A SUV39H
Observed MW:	48-50 kDa
Uniprot ID :	O43463

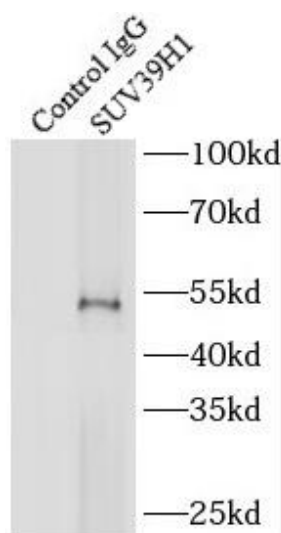
Application

Reactivity: Human, Mouse, Rat

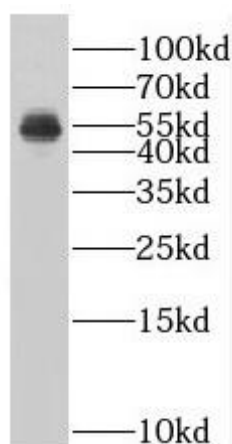
Tested Application: ELISA, WB, IP

Recommended dilution: WB: 1:500-1:2000; IP: 1:200-1:2000

Image:



IP Result of anti-SUV39H1 (IP:FNab08404, 4ug; Detection:FNab08404 1:500) with HeLa cells lysate 2800ug.



HepG2 cells were subjected to SDS PAGE followed by western blot with FNab08404(SUV39H1 antibody) at dilution of 1:1000