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Histone Methyltransferase (SUV39H1) Blocking Peptide

Catalog # PBV10454b

Specification

Histone Methyltransferase (SUV39H1) Blocking Peptide - Product Information

Primary Accession	O54864
Other Accession	NP_035644.1
Gene ID	20937
Calculated MW	47754

Histone Methyltransferase (SUV39H1) Blocking Peptide - Additional Information

Gene ID 20937

Application & Usage	**The peptide is used for blocking the antibody activity of Histone Methyltransferase (SUV39H1). It usually blocks the antibody activity completely in Western blot analysis by incubating the peptide with equal volume of antibody for 30-60 minutes at 37°C.**

Other Names
Histone-lysine N-methyltransferase SUV39H1, 2.1.1.43, Histone H3-K9 methyltransferase 1, H3-K9-HMTase 1, Position-effect variegation 3-9 homolog, Suppressor of variegation 3-9 homolog 1, Su(var)3-9 homolog 1, Suv39h1, Suv39h

Target/Specificity
Histone Methyltransferase (SUV39H1)

Formulation
50 µg (0.5 mg/ml) in phosphate buffered saline (PBS), pH 7.2, containing 50% glycerol, 1% BSA and 0.02% thimerosal.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
Histone Methyltransferase (SUV39H1) Blocking Peptide is for research use only and not for use in diagnostic or therapeutic procedures.

Histone Methyltransferase (SUV39H1) Blocking Peptide - Protein Information

Name Suv39h1

Synonyms Suv39h

Function
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 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 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.

Cellular Location
Nucleus {ECO:0000250|UniProtKB:O43463}. Nucleus lamina. Nucleus, nucleoplasm. Chromosome, centromere. Note=Associates with centromeric constitutive heterochromatin

Tissue Location
Widely expressed.

Histone Methyltransferase (SUV39H1) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Histone Methyltransferase (SUV39H1) Blocking Peptide - Images