

Rabbit anti-Human SUV39H1 Polyclonal Antibody | anti-SUV39H1 antibody

SUV39H1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA327489	Rabbit	Human	ELISA, Immunohistochemistry, Western Blot

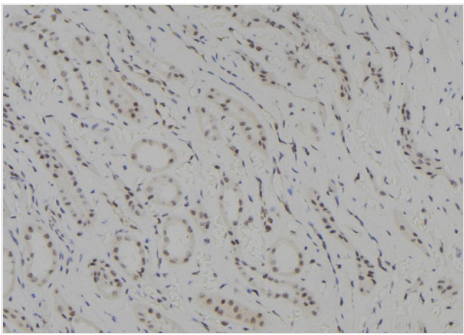
PRODUCT SYNONYMS

SUV39H1; Polyclonal Antibody; SUV39H1 Antibody; H3 K9 HMTase1; H3-K9-HMTase 1; Histone H3-K9 methyltransferase 1; Histone H3-K9 methyltransferase1; Histone lysine N methyltransferase; H3 lysine 9 specific 1; Histone-lysine N-methyltransferase SUV39H1; KMT1 A; KMT1A; Lysine N methyltransferase 1A; Lysine N-methyltransferase 1A; MG44; mlS6; Position-effect variegation 3-9 homolog; Su(var)3 9 homolog 1; Su(var)3-9 homolog 1; Suppressor of variegation 3 9 homolog 1 (Drosophila); Suppressor of variegation 3-9 homolog 1; SUV39 H1; SUV39H; SUV91_HUMAN; anti-SUV39H1 antibody

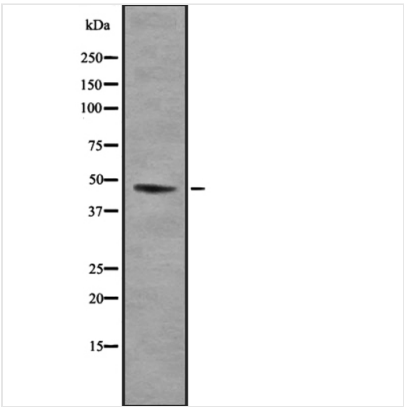
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	IgG
Specificity	SUV39H1 antibody detects endogenous levels of total SUV39H1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	423
Applicable Applications for anti-SUV39H1 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human SUV39H1
Subcellular Location	Nucleus. Nucleus Lamina. Nucleus, Nucleoplasm. Chromosome, Centromere. Associates with centromeric constitutive heterochromatin.
Tissue Specificity	Accumulates during mitosis at centromeres during prometaphase, but dissociates from the centromere at the meta-to anaphase transition.
Predicted Cross Reactivity	Pig, Bovine, Rabbit, Dog
Similarity	Pig (100%), Bovine (100%), Rabbit (100%), Dog (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)
AAA327489 at 1/100 staining Human kidney tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis SUV39H1 using Jurkat whole cell lysates

ADDITIONAL INFORMATION

Related Product Information for anti-SUV39H1 antibody	Function: 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. Subunit Structure: Interacts with H3 and H4 histones. Interacts with GFI1B, DNMT3B, CBX1, CBX4, CCAR2, MBD1, RUNX1, RUNX3, MYOD1, SMAD5 and RB1. Interacts with SBF1 through the SET domain. Interacts with HDAC1 and HDAC2 through the N-terminus and associates with the core histone deacetylase complex composed of HDAC1, HDAC2, RBBP4 and RBBP7. Component of the eNoSC complex, composed of SIRT1, SUV39H1 and RRP8. In case of infection, interacts with HTLV-1 Tax protein, leading to abrogate Tax transactivation of HTLV-1 LTR. Interacts (via SET domain) with MECOM; enhances MECOM transcriptional repression activity. Interacts with LMNA; the interaction increases stability of SUV39H1. The large PER complex involved in the histone methylation is composed of at least PER2, CBX3, TRIM28, SUV39H1 and/or SUV39H2; CBX3 mediates the formation of the complex. Post-translational Modifications: Phosphorylated on serine residues, and to a lesser degree, on threonine residues. The phosphorylated form is stabilized by SBF1 and is less active in its transcriptional repressor function. Acetylated at Lys-266, leading to inhibition of enzyme activity. SIRT1-mediated deacetylation relieves this inhibition. Similarity: Although the SET domain contains the active site of enzymatic activity, both pre-SET and post-SET domains are required for methyltransferase activity. The SET domain also participates in stable binding to heterochromatin. In the pre-SET domain, Cys residues bind 3 zinc ions that are arranged in a triangular cluster; some of these Cys residues contribute to the binding of two zinc ions within the cluster. Belongs to the class V-like SAM-binding methyltransferase superfamily. Histone-lysine methyltransferase family. Suvar3-9 subfamily.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	531990830
NCBI GeneID	6839
NCBI Accession #	NP_001269095.1

NCBI GenBank Nucleotide #	NM_001282166.1
UniProt Accession #	O43463; Q53G60; Q6FHK6; B2R6E8; B4DST0
Molecular Weight	Observed: 47 kDa Predicted: 48 kDa
NCBI Official Full Name	histone-lysine N-methyltransferase SUV39H1 isoform 1
NCBI Official Synonym Full Names	suppressor of variegation 3-9 homolog 1
NCBI Official Symbol	SUV39H1
NCBI Official Synonym Symbols	MG44; KMT1A; SUV39H; H3-K9-HMTase 1
NCBI Protein Information	histone-lysine N-methyltransferase SUV39H1
UniProt Protein Name	Histone-lysine N-methyltransferase SUV39H1
UniProt Gene Name	SUV39H1
UniProt Synonym Gene Names	KMT1A; SUV39H; H3-K9-HMTase 1; Su(var)3-9 homolog 1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/suv39h1-antibody-immunohistochemistry-western-blot-elisa/327489>