Immunotag™ SUV39H1 Antibody

Antibody Specification

Catalog No.	ITA8229
Product Description	Immunotag™ SUV39H1 Antibody
Size	100 µg, 200 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	SUV39H1
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,IHC,ELISA
Recommended Dilution	WB 1:1000-3000 IHC 1:200
Concentration	1 mg/ml
Reactive Species	Human
Host Species	Rabbit
Immunogen	A synthesized peptide derived from human SUV39H1
Specificity	SUV39H1 Antibody detects endogenous levels of total SUV39H1
Purification	The antiserum was purified by peptide affinity chromatography.
Form	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.Store at -20 °C.Stable for 12 months from date of receipt
Gene Name	SUV39H1
Accession No.	O43463

Antibody Specification

Alternate Names	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; mIS6; 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; SUV39H1; SUV91_HUMAN;
Description	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.
Cell Pathway/ Category	Primary Polyclonal Antibody
Protein MW	47 kDa
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.