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Store at -20C
#8729

SUV39H1 (D11B6) Rabbit mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP	Reactivity: H M R Mk	Sensitivity: Endogenous	MW (kDa): 48	Source/Isotype: Rabbit IgG	UniProt ID: #O43463	Entrez-Gene Id: 6839
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Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

SUV39H1 (D11B6) Rabbit mAb recognizes endogenous levels of total SUV39H1 protein. This antibody does not cross-react with the SUV39H2 protein.

Species predicted to react based on 100% sequence homology

Bovine, Rabbit

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asp380 of human SUV39H1 protein.

Background

Human histone methyltransferase SUV39H1 is the homolog of the dominant *Drosophila* PEV modifier Su(var)3-9 and is composed of 412 amino acid residues (1). It combines two of the most evolutionarily conserved domains of the "chromatin regulators": the chromo and SET domains (2,3). The 60 amino acid chromo domain represents an ancient histone-like fold that directs heterochromatic localizations. It has been demonstrated that the 130 amino acid SET domain contains the methyltransferase catalytic motif, which cooperates with the adjacent cysteine-rich regions to confer histone methyltransferase activity (1). This enzyme selectively methylates histone H3 on Lys9, which generates a binding site for HP1 proteins, a family of heterochromatic adaptor molecules involved in both gene silencing and supra-nucleosomal chromatin structure (4,5). SUV39H1 histone methyltransferase plays an important role in modification of histone amino termini and regulation of gene expression.

Background References

1. Rea, S. et al. (2000) *Nature* 406, 593-599.
2. Koonin, E. V. et al. (1995) *Nucleic Acids Res.* 23, 4229-4232.
3. Jenuwein, T. et al. (1998) *Cell. Mol. Life Sci.* 54, 80-93.
4. Lachner, M. et al. (2001) *Nature* 410, 116-120.
5. Bannister, A. J. et al. (2001) *Nature* 410, 120-123.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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