

# SUV39H1 Histone Methyltransferase Antibody

✓ 100 µl  
(10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Transfected	H, M	48 kDa	Rabbit**

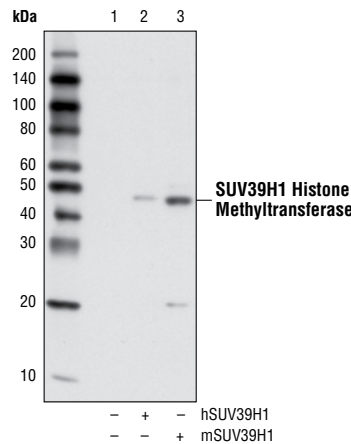
**Background:** Human histone methyltransferase SUV39H1 is the homologue of the dominant *Drosophila* PEV modifier Su(var)3-9 and is composed of 412 amino acid residues (1). It combines two of the most evolutionarily conserved domains of the "chromatin regulators": the chromo and SET domains (2,3). The 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 lysine 9, 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.

**Specificity/Sensitivity:** SUV39H1 Histone Methyltransferase Antibody detects transfected levels of total SUV39H1 histone methyltransferase. The antibody does not cross-react with other related proteins.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide (KLH-coupled) corresponding to the amino-terminal sequence of human SUV39H1. Antibodies are purified by protein A and peptide affinity chromatography.

#### 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.



Western blot analysis of total extracts from COS cells, mock transfected or transfected with constructs expressing either human or mouse SUV39H1, using SUV39H1 Histone Methyltransferase Antibody.

Entrez-Gene ID #6839  
Swiss-Prot Acc. #O43463

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

\*Species cross-reactivity is determined by western blot.

\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.

#### Recommended Antibody Dilutions:

Western Blotting 1:1000

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

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

**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine  
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.