

**SUV39H2 Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP1281b****Specification**

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**SUV39H2 Antibody (C-term) - Product Information**

Application	WB, IHC-P,E
Primary Accession	<a href="#">O9H5I1</a>
Other Accession	<a href="#">O4R3E0</a> , <a href="#">NP_078946</a>
Reactivity	Human, Rat
Predicted	Monkey
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	360-390

**SUV39H2 Antibody (C-term) - Additional Information****Gene ID** 79723**Other Names**

Histone-lysine N-methyltransferase SUV39H2, Histone H3-K9 methyltransferase 2, H3-K9-HMTase 2, Lysine N-methyltransferase 1B, Suppressor of variegation 3-9 homolog 2, Su(var)3-9 homolog 2, SUV39H2, KMT1B

**Target/Specificity**

This SUV39H2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 360-390 amino acids from the C-terminal region of human SUV39H2.

**Dilution**

WB~~1:1000  
IHC-P~~1:50~100

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

SUV39H2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**SUV39H2 Antibody (C-term) - Protein Information****Name** SUV39H2

## Synonyms KMT1B

**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 cell cycle regulation, transcriptional repression and regulation of telomere length. May participate in regulation of higher-order chromatin organization during spermatogenesis. 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.

## Cellular Location

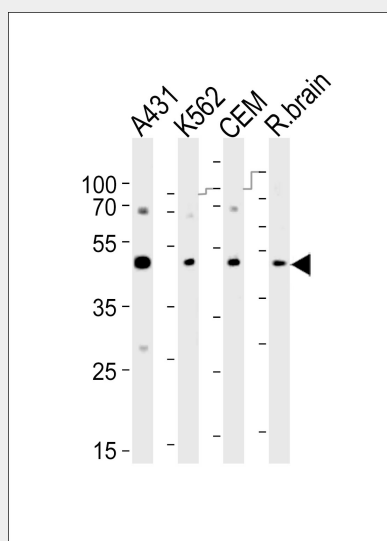
Nucleus. Chromosome, centromere. Note=Associates with centromeric constitutive heterochromatin.

## SUV39H2 Antibody (C-term) - Protocols

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

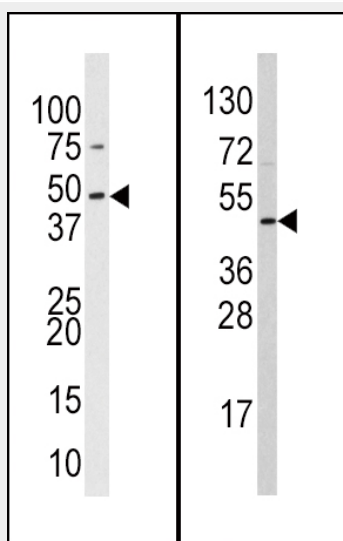
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## SUV39H2 Antibody (C-term) - Images

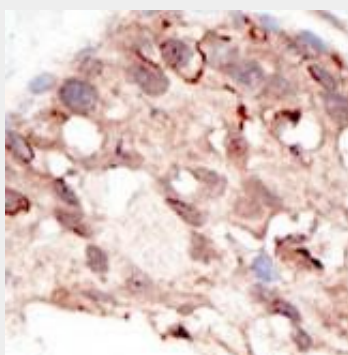


Western blot analysis of lysates from A431, K562, CEM cell line and rat brain tissue lyaste(from left to right), using SUV39H2 Antibody (K315)(Cat. #AP1281B). AP1281B was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary

antibody. Lysates at 35ug per lane.



Western blot analysis of anti-hSUV39H2-K315 Pab (Cat. AP1281b) in 293 and HL60 cell line lysates (35ug/lane). hSUV39H2-K315 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

#### **SUV39H2 Antibody (C-term) - Background**

The murine gene Suv39h2 encodes an H3 histone methyltransferase (HMTase) 59% identical in sequence to mouse Suv39h1. During embryogenesis, both proteins overlap in tissue expression, yet Suv39h2 transcripts are restricted to the testes in adult animals. Immunolocalization of the Suv39h2 protein during spermatogenesis indicates enrichment at the heterochromatin from the leptotene to the round spermatid stage. Moreover, Suv39h2 specifically accumulates with chromatin of the sex chromosomes, which undergo transcriptional silencing during the first meiotic prophase. Suv39h2 HMTase may also organize meiotic heterochromatin with the potential for epigenetic imprint to the male germline.

#### **SUV39H2 Antibody (C-term) - References**

Ota, T., et al., Nat. Genet. 36(1):40-45 (2004).  
Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002).