

SUV39H2 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1281a**Specification**

SUV39H2 Antibody (N-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	O9H5I1
Other Accession	NP_078946
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	93-122

SUV39H2 Antibody (N-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 93-122 amino acids from the N-terminal region of human SUV39H2.

Dilution

WB~~1:1000

IHC-P~~1:50~100

E~~Use at an assay dependent concentration.

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

SUV39H2 Antibody (N-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

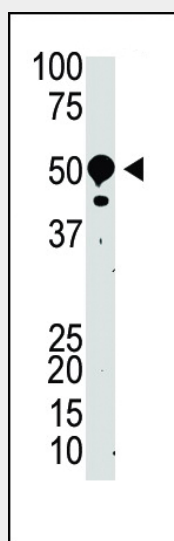
Nucleus. Chromosome, centromere. Note=Associates with centromeric constitutive heterochromatin.

SUV39H2 Antibody (N-term) - Protocols

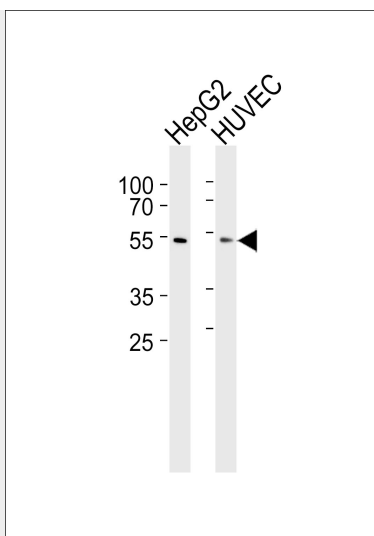
Provided below are standard protocols that you may find useful for product applications.

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

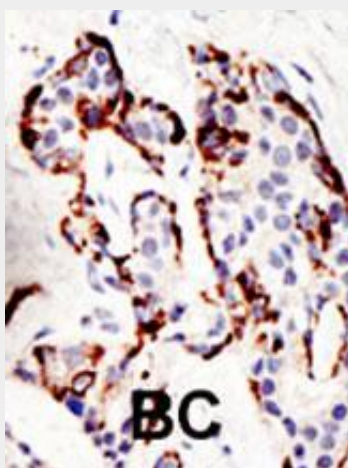
SUV39H2 Antibody (N-term) - Images



The anti-SUV39H2 Pab (Cat. #AP1281a) is used in Western blot to detect SUV39H2 in mouse kidney tissue lysate.



Western blot analysis of lysates from HepG2, HUVEC cell line (from left to right), using SUV39H2 Antibody (K48)(Cat. #AP1281A). AP1281A was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.



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 (N-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 (N-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).

SUV39H2 Antibody (N-term) - Citations

- [Histone-modifying genes as biomarkers in hepatocellular carcinoma.](#)
- [High expressions of histone methylation- and phosphorylation-related proteins are associated with prognosis of oral squamous cell carcinoma in male population of Taiwan.](#)
- [Epigenetic regulation of surfactant protein A gene \(SP-A\) expression in fetal lung reveals a critical role for Suv39h methyltransferases during development and hypoxia.](#)