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SUV39H1 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1190a

Product Information

Application	WB, E
Primary Accession	O43463
Other Accession	NP_003164
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG

Additional Information

Other Names	Histone-lysine N-methyltransferase SUV39H1, Histone H3-K9 methyltransferase 1, H3-K9-HMTase 1, Lysine N-methyltransferase 1A, Position-effect variegation 3-9 homolog, Suppressor of variegation 3-9 homolog 1, Su(var)3-9 homolog 1, SUV39H1, KMT1A, SUV39H
Target/Specificity	Purified recombinant GST fusion protein encoding N-terminal of human SUV39H1.
Dilution	WB~~1:1000 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	SUV39H1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Background

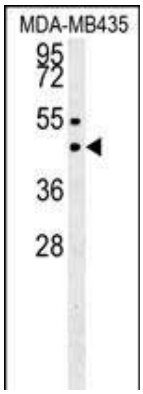
Similar to acetylation and phosphorylation, histone methylation at the N-terminal tail has emerged as an important role in regulating chromatin dynamics and gene activity. Histone methylation occurs on arginine and lysine residues and is catalyzed by two families of proteins, the protein arginine methyltransferase family and the SET-domain-containing methyltransferase family. Five members have been identified in the arginine methyltransferase family. About 27 are grouped into the SET-domain family, and another 17 make up the PR domain family that is related to the SET domain family. The retinoblastoma protein-interacting

zinc finger geneRIZ1 is a tumor suppressor gene and a FOUNDING member of the PR domain family. RIZ1 inactivation is commonly found in many types of human cancers and occurs through loss of mRNA expression, frame shift mutation, chromosomal deletion, and missense mutation. RIZ1 is also a tumor susceptibility gene in mice. The loss of RIZ1 mRNA in human cancers was shown to associate with DNA methylation of its promoter CpG island. Methylation of the RIZ1 promoter strongly correlated with lost or decreased RIZ1 mRNA expression in breast, liver, colon, and lung cancer cell lines as well as in liver cancer tissues.

References

Fujita, N., et al., J. Biol. Chem. 278(26):24132-24138 (2003). Macaluso, M., et al., Oncogene 22(23):3511-3517 (2003). Schotta, G., et al., EMBO J. 21(5):1121-1131 (2002). Vaute, O., et al., Nucleic Acids Res. 30(2):475-481 (2002). Rea, S., et al., Nature 406(6796):593-599 (2000).

Images



SUV39H1 (Cat. #AP1190a) western blot analysis in MDA-MB435 cell line lysates (35ug/lane). This demonstrates the SUV39H1 antibody detected the SUV39H1 protein (arrow).

Citations

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