3050 Spruce Street, St. Louis, MO 63103 USA Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757 email: techservice@sial.com sigma-aldrich.com

Product Information

Monoclonal Anti-SUV39H1 Clone 42AT239.96.72 produced in mouse, purified immunoglobulin

Catalog Number **SAB1300002** Storage Temperature –20 °C

Synonyms: Anti-KMT1A

Product Description

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 proteininteracting zinc finger gene *RIZ1* 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.

NCBI Accession number: NP 003164

This antibody was raised using purified recombinant GST fusion protein encoding N-terminal of human SUV39H1.

Immunogen: SUV39H1 (XM 047059, N Terminal)

Isotype: IgG1

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.

Species reactivity: mouse, human

Tested applications: Immunoblotting: 1:100–1:500 ELISA (i): 1:1,000

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store the product at $-20~^{\circ}\text{C}$ in working aliquots. Repeated freezing and thawing is not recommended. Storage in "frost-free" freezers is also not recommended. For continuous use, store at 2–8 $^{\circ}\text{C}$ for up to one month. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

SC,BD,MAM 06/10-1