

SUV39H1 Monoclonal Antibody (42AT239.96.72)

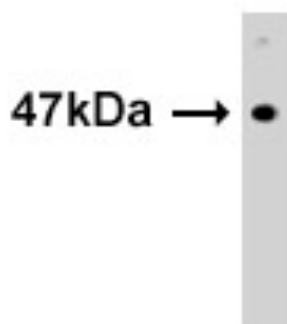
Product Specifications	
Catalog Number:	905-695-100
Host:	Mouse
Isotype:	IgG ₁
Species Reactivity:	Mouse and human
Applications: <i>The optimal dilution for a specific application must be determined by the investigator</i>	WB: 1:100-500 ELISA: 1:1,000
Predicted m.w:	~48 kDa
Concentration:	See product label
Purification:	Protein G Affinity
Format:	PBS, 0.09% sodium azide
Storage: <i>Shipping conditions may differ from the recommended storage temperature</i>	Store at -20°C
Immunogen:	Purified recombinant GST fusion protein encoding the amino-terminus of human SUV39H1
Related Products:	
KAP-TF121	Methylated Lysine Polyclonal Antibody
905-694	Set 7 Monoclonal Antibody
KAM-TF040	Dnmt1 Mouse Monoclonal Antibody
907-025	Methyltransferase Activity Kit

Background:

SUV39H1 is the mammalian homolog of the *Drosophila* position effect variegation modifier Su(var)3-9, and was the first SET domain-containing protein to be identified as a methyltransferase¹⁻². SUV39H1 functions to stabilize heterochromatic regions of the genome by catalyzing the trimethylation of lysine 9 of histone H3 (H3K9)²⁻³. Methylated H3K9 on heterochromatin forms a binding site for members of the HP1 family of chromodomain proteins, which assist in the preservation of chromosomal stability⁴⁻⁵. SUV39H1 is also known to participate in cell cycle regulation through association with pRb⁶, and is an important regulator of mammalian telomere length⁷. SUV39H1 knockout mice develop late onset B-cell lymphoma and are subject to chromosomal instability³.

References:

1. Lund, A.H., et al. (2004) *Genes & Dev.* 18, 2315-2335.
2. Rea, S., et al. (2000) *Nature* 406, 593-599.
3. Peters, A.H., et al. (2001) *Cell* 107, 323-337.
4. Bannister, A.J., et al. (2001) *Nature* 410, 120-124.
5. Lachner, M., et al. (2001) *Nature* 410, 116-120.
6. Nielsen, S.J., et al. (2001) *Nature* 412, 561-565.
7. Garcia-Cao, M., et al. (2004) *Nat Genet.* 36, 94-99.



Western blot analysis of 293 cell lysates probed with SUV39H1 Monoclonal Antibody (42AT239.96.72)