

SUV39H1 recombinant protein

SUV39H1 (KMT1A), Active

CATALOG # AAA73135	HOST Sf9 insect cells using baculovirus	APPLICATIONS Methyltransferase Assay
------------------------------	---	--

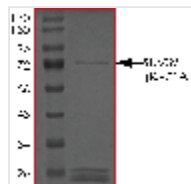
PRODUCT SYNONYMS

SUV39H1; SUV39H1 (KMT1A); Active; SUV39H1 recombinant protein

PRODUCT SPECIFICATIONS

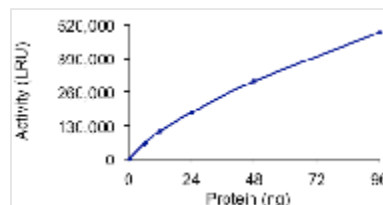
Host	Sf9 insect cells using baculovirus
Purity/Purification	>70%
Form/Format	50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
Concentration	0.05 ug/ul (varies by lot)
Sequence Positions	Full length
Sequence Length	2752
Applicable Applications for SUV39H1 recombinant protein	Methyltransferase Assay
Species	Human
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Ships on Dry Ice Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

IMAGES



Application Data

The purity of SUV39H1 (KMT1A) was determined to be >70% by densitometry, approx. MW 73 kDa.



Application Data

The specific activity of SUV39H1 (KMT1A) was determined to be 2.2 nmol/min/mg as per activity assay protocol.

ADDITIONAL INFORMATION

Related Product Information for SUV39H1 recombinant protein	Description: Recombinant full-length human SUV39H1 was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag. Scientific Background: SUV39H1 is a histone H3-specific methyltransferases that selectively methylates lysine-9 of the N terminus of histone H3 in vitro (1). SUV39H1 is also a member of the suppressor of variegation 3-9 homolog family and encodes a protein with a chromodomain and a C-terminal SET domain. SUV39H1 moves to the centromeres during mitosis where it functions as a histone methyltransferase, methylating Lys-9 of histone H3. SUV39H1 activity is regulated by acetylation at lysine residue 266 in its catalytic SET domain by SIRT1. SIRT1 interacts directly with, recruits, and deacetylates SUV39H1, and these activities independently contribute to elevated levels of SUV39H1 activity resulting in increased levels of the H3K9me3 modification (2).
Product Categories/Family for SUV39H1 recombinant protein	Enzymes; Active Methyltransferases
References	1. Rea, S.et al: Regulation of chromatin structure by site-specific histone H3 methyltransferases. Nature 406: 593-599, 2000. 2. Vaquero, A. et al: SIRT1 regulates the histone methyl-transferase SUV39H1 during heterochromatin formation. Nature 450: 440-444, 2007.

NCBI AND UNIPROT INFORMATION

NCBI GI #	531990831
NCBI GeneID	6839
NCBI Accession #	NM_003173.3
NCBI GenBank Nucleotide #	NM_003173
UniProt Accession #	O43463; Q53G60; Q6FHK6; B2R6E8; B4DST0
Molecular Weight	73 kDa
NCBI Official Full Name	Homo sapiens suppressor of variegation 3-9 homolog 1 (SUV39H1), transcript variant 2, mRNA
NCBI Official Synonym Full Names	suppressor of variegation 3-9 homolog 1
NCBI Official Symbol	SUV39H1
NCBI Official Synonym Symbols	MG44; KMT1A; SUV39H; H3-K9-HMTase 1
NCBI Protein Information	histone-lysine N-methyltransferase SUV39H1
UniProt Protein Name	Histone-lysine N-methyltransferase SUV39H1
UniProt Gene Name	SUV39H1
UniProt Synonym Gene Names	KMT1A; SUV39H; H3-K9-HMTase 1; Su(var)3-9 homolog 1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.