ESET Mouse mAb

CatalogNo: YM0254

Key Features

Host Species
- Mouse

Reactivity
- Human,Mouse,Monkey

Applications
- WB,IF,ELISA

MW
- 143kD (Calculated)

Recommended Dilution Ratios

WB 1:500-1:2000
IF 1:200-1:1000
ELISA 1:10000
Not yet tested in other applications.

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality	Monoclonal

Immunogen Information

Immunogen	Purified recombinant fragment of human ESET expressed in E. Coli.
Specificity	ESET Monoclonal Antibody detects endogenous levels of ESET protein.

Target Information

Gene name SETDB1

Protein Name Histone-lysine N-methyltransferase SETDB1

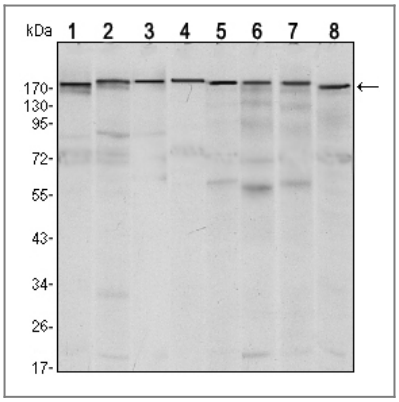
Organism	Gene ID	UniProt ID
Human	9869;	Q15047;
Mouse		O88974;

Cellular Localization Nucleus . Cytoplasm . Chromosome. Associated with non-pericentromeric regions of chromatin. Excluded from nucleoli and islands of condensed chromatin. .

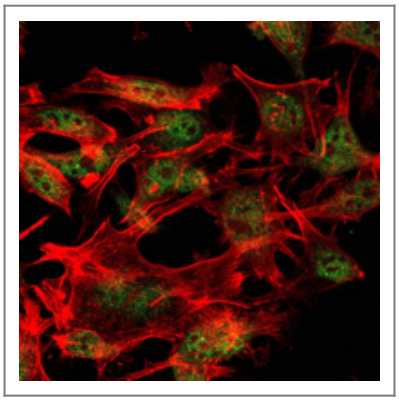
Tissue specificity Widely expressed. High expression in testis.

Function Catalytic activity:S-adenosyl-L-methionine + histone L-lysine = S-adenosyl-L-homocysteine + histone N(6)-methyl-L-lysine.,Domain:The pre-SET, SET and post-SET domains are all required for methyltransferase activity. The 347-amino-acid insertion in the SET domain has no effect on the catalytic activity.,Function:Histone methyltransferase that specifically trimethylates 'Lys-9' of histone H3. 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 euchromatin regions, thereby playing a central role in the silencing of euchromatic genes. H3 'Lys-9' trimethylation is coordinated with DNA methylation. Probably forms a complex with MBD1 and ATF7IP that represses transcription and couples DNA methylation and histone 'Lys-9' trimethylation. Its activity is dependent on MBD1 and is heritably maintained through DNA replication by being recruited by CAF-1. SETDB1 is targeted to histone H3 by TRIM28/TIF1B, a factor recruited by KRAB zinc-finger proteins.,miscellaneous:Highly up-regulated in Huntington disease patients, suggesting that participates in the altered chromatin modulation and transcription dysfunction observed in Huntington disease. Its down-regulation has salubrious effects on patients, suggesting that it may be a promising treatment in Huntington disease patients.,miscellaneous:Isoform 2 lacks all domains required for histone methyltransferase activity.,similarity:Belongs to the histone-lysine methyltransferase family. Suvar3-9 subfamily.,similarity:Contains 1 MBD (methyl-CpG-binding) domain.,similarity:Contains 1 post-SET domain.,similarity:Contains 1 pre-SET domain.,similarity:Contains 1 SET domain.,similarity:Contains 2 Tudor domains.,subcellular location:Associated with non-pericentromeric regions of chromatin. Excluded from nucleoli and islands of condensed chromatin.,subunit:Interacts with MBD1; interaction is abolished when MBD1 is sumoylated. Interacts with ATF7IP and ATF7IP2; the interaction with ATF7IP is required to stimulate histone methyltransferase activity and facilitate the conversion of dimethylated to trimethylated H3 'Lys-9'. During DNA replication, it is recruited by SETDB1 to form a S phase-specific complex that facilitates methylation of H3 'Lys-9' during replication-coupled chromatin assembly and is at least composed of the CAF-1 subunit CHAF1A, MBD1 and SETDB1. Interacts with ERG, TRIM28/TIF1B, CBX1, CBX5, DNMT3A, HDAC1, HDAC2, SIN3A, SIN3B, DNMT3B and SUMO2.,tissue specificity:Widely expressed. High expression in testis.,

Validation Data



Western Blot analysis using ESET Monoclonal Antibody against MCF-7 (1),T47D (2), HEK293 (3), JURKAT (4), NIH/3T3 (5), F9 (6), RAW246.7 (7) and Cos7 (8) cell lysate.



Immunofluorescence analysis of LOVO cells using ESET Monoclonal Antibody (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

Contact information

Orders:	order.cn@immunoway.com
Support:	support.cn@immunoway.com
Telephone:	400-8787-807(China)
Website:	http://www.immunoway.com.cn
Address:	2200 Ringwood Ave San Jose, CA 95131 USA

Please scan the QR code to access additional product information:
ESET Mouse mAb