

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.

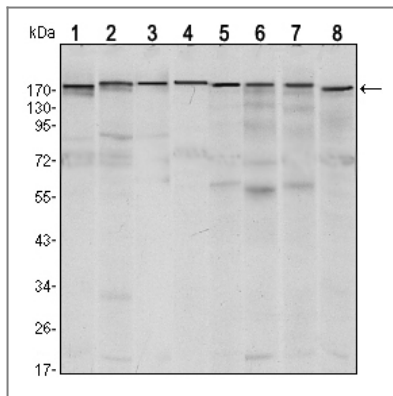
Specificity

ESET Monoclonal Antibody detects endogenous levels of ESET protein.

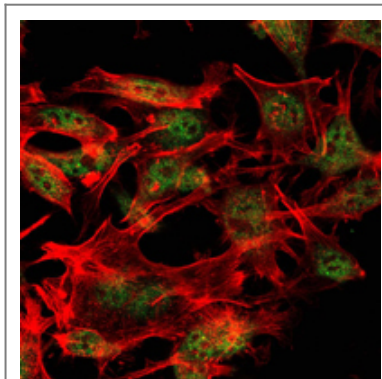
| Target Information

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	<p>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.,</p>		

| 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

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

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