

For Research Use Only

# SETDB1 Monoclonal antibody

Catalog Number: 66293-1-Ig



## Basic Information

<b>Catalog Number:</b> 66293-1-Ig	<b>GenBank Accession Number:</b> BC009362	<b>Purification Method:</b> Protein G purification
<b>Size:</b> 150ul, Concentration: 1000 µg/ml by Nanodrop and 1000 µg/ml by Bradford method using BSA as the standard;	<b>GeneID (NCBI):</b> 9869	<b>CloneNo.:</b> 1H6E5
<b>Source:</b> Mouse	<b>Full Name:</b> SET domain, bifurcated 1	<b>Recommended Dilutions:</b> WB 1:20000-1:100000 IHC 1:500-1:2000
<b>Isotype:</b> IgG1	<b>Calculated MW:</b> 143 kDa	
<b>Immunogen Catalog Number:</b> AG21644	<b>Observed MW:</b> 170-180 kDa	

## Applications

### Tested Applications:

IHC, WB, ELISA

### Species Specificity:

human, mouse, rat

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

**WB:** HeLa cells, HEK-293 cells, human heart tissue, MCF-7 cells, Jurkat cells, HepG2 cells

**IHC:** human colon tissue, rat liver tissue, rat colon tissue, mouse colon tissue

## Background Information

SETDB1, also named as ESET, KIAA0067 and KMT1E, belongs to the histone-lysine methyltransferase family. It is a SET domain protein with histone H3-K9-specific methyltransferase activity. H3 'Lys-9' trimethylation is coordinated with DNA methylation and represents a specific tag for epigenetic transcriptional repression by recruiting HP1 (CBX1, CBX3 and/or CBX5) proteins to methylated histones. SETDB1 mainly functions in euchromatin regions, thereby playing a central role in the silencing of euchromatic genes. It 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 regulates histone methylation, gene silencing, and transcriptional repression. It has been identified as a target for treatment in Huntington Disease, given that gene silencing and transcription dysfunction likely play a role in the disease pathogenesis. The calculated molecular weight of SETDB1 is 143 kDa, but the modified SETDB1 protein is about 170 kDa (PMID: 11791185).

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

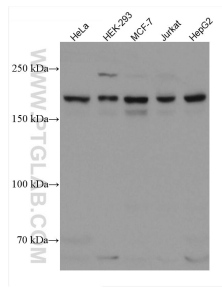
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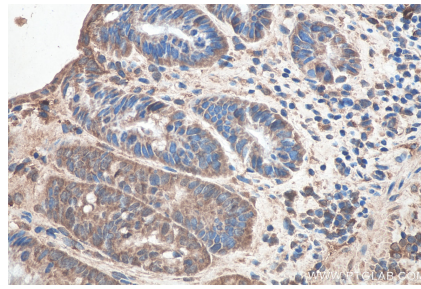
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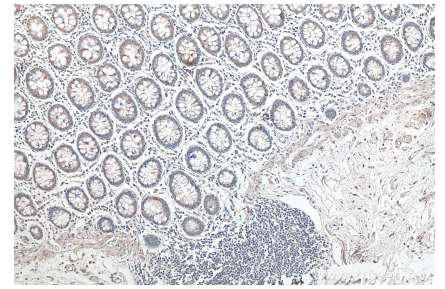
## Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 66293-1-Ig (SETDB1 antibody) at dilution of 1:100000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse colon tissue slide using 66293-1-Ig (SETDB1 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human colon tissue slide using 66293-1-Ig (SETDB1 antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).