

For Research Use Only

# SETDB1 Recombinant antibody

Catalog Number:83772-6-RR



## Basic Information

<b>Catalog Number:</b> 83772-6-RR	<b>GenBank Accession Number:</b> BC009362	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ul , Concentration: 1000 µg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 9869	<b>CloneNo.:</b> 240805F2
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q15047	<b>Recommended Dilutions:</b> IHC 1:250-1:1000 IF/ICC 1:125-1:500
<b>Isotype:</b> IgG	<b>Full Name:</b> SET domain, bifurcated 1	
<b>Immunogen Catalog Number:</b> AG1725	<b>Calculated MW:</b> 143 kDa	
	<b>Observed MW:</b> 170 kDa	

## Applications

**Tested Applications:**  
IHC, IF/ICC, FC (Intra), ELISA

**Species Specificity:**  
human

**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:**

IHC : human colon cancer tissue,

IF/ICC : HepG2 cells,

## 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. This antibody is a rabbit polyclonal antibody raised against residues near the N terminus of human SETDB1. 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

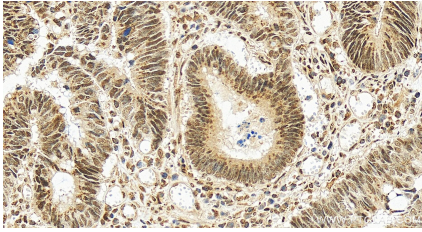
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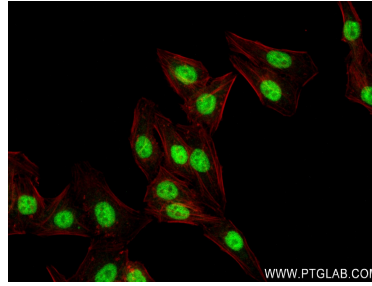
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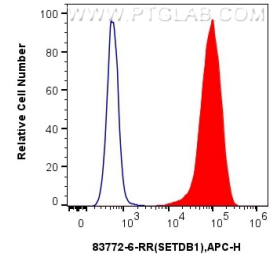
## Selected Validation Data



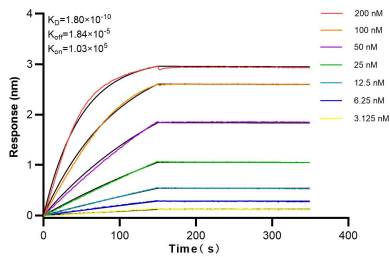
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 83772-6-RR (SETDB1 antibody) at dilution of 1:500 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using SETDB1 antibody (83772-6-RR, Clone: 240805F2) at dilution of 1:250 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red).



$1 \times 10^6$  HeLa cells were intracellularly stained with 0.25  $\mu$ g SETDB1 Recombinant antibody (83772-6-RR, Clone:240805F2) and APC-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)(red), or 0.25  $\mu$ g Isotype Control (blue). Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).



Biolayer interferometry (BLI) kinetic assays of 83772-6-RR against Human SETDB1 were performed. The affinity constant is 0.18 nM.