

For Research Use Only

SETDB1 Recombinant antibody

Catalog Number: 83772-6-RR



Basic Information

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

Applications

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| Tested Applications: IF/ICC, FC (Intra), ELISA | Positive Controls: IF/ICC : HepG2 cells, |
| Species Specificity: human | |

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).

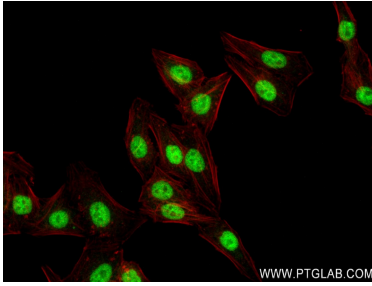
Storage

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

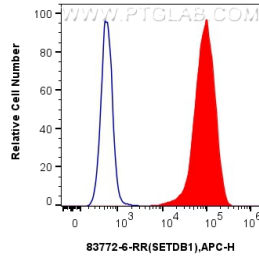
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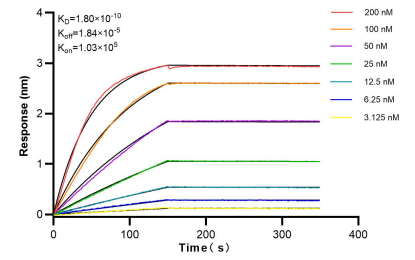
Selected Validation Data



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).



1x10⁶ HeLa cells were intracellularly stained with 0.25 ug SETDB1 Recombinant antibody (83772-6-RR, Clone:240805F2) and APC-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)(red), or 0.25 ug 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.