

For Research Use Only

SETDB1 Polyclonal antibody

Catalog Number: 11231-1-AP

Featured Product

88 Publications



Basic Information

Catalog Number:

11231-1-AP

Size:

150ul, Concentration: 900 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG1725

GenBank Accession Number:

BC009362

GeneID (NCBI):

9869

UNIPROT ID:

Q15047

Full Name:

SET domain, bifurcated 1

Calculated MW:

143 kDa

Observed MW:

170 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB: 1:2000-1:12000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:50-1:500

IF/ICC: 1:200-1:800

FC (Intra): 0.40 ug per 10⁶ cells in a 100 µl suspension

ChIP: 1:10-1:100

Applications

Tested Applications:

WB, IHC, IF/ICC, FC (Intra), IP, ChIP, ELISA

Cited Applications:

WB, IHC, IF, IP, CoIP, ChIP

Species Specificity:

human, mouse

Cited Species:

human, mouse

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: HEK-293 cells, HeLa cells, human testis tissue, Jurkat cells, MCF-7 cells, PC-3 cells, MDA-MB-231 cells, NIH/3T3 cells

IP: MCF-7 cells,

IHC: human lung cancer tissue, human testis tissue

IF/ICC: A431 cells,

FC (Intra): A431 cells,

ChIP: HeLa 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).

Notable Publications

Author	Pubmed ID	Journal	Application
Keli Chen	29158805	J Cancer	chIP
Qi Li	34497149	J Immunol	ChIP
Tiantian Liu	28890329	Biochim Biophys Acta	chIP

Storage

Storage:

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

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

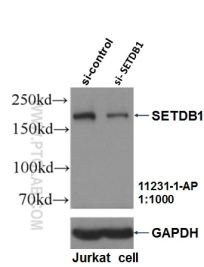
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

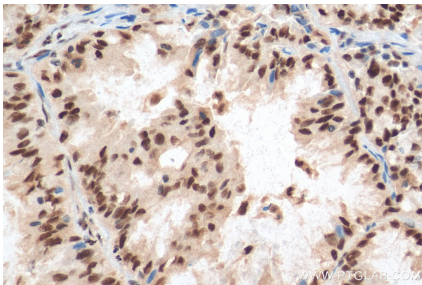
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

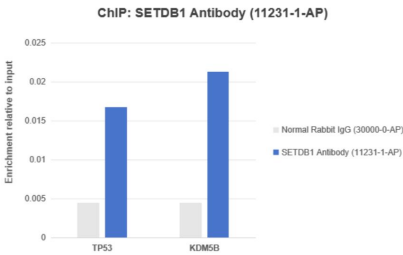
Selected Validation Data



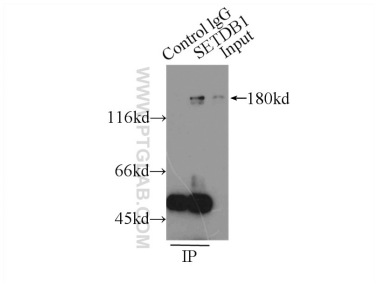
WB result of SETDB1 antibody (11231-1-AP, 1:1000) with si-Control and si-SETDB1 transfected Jurkat cells.



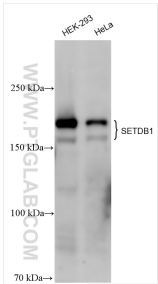
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 11231-1-AP (SETDB1 antibody) at dilution of 1:200 (under 40x Lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



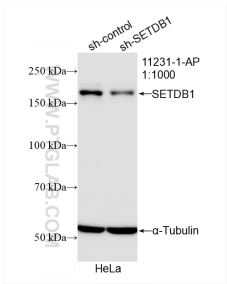
Chromatin was prepared from HeLa cells, cells were fixed with formaldehyde for 10 minutes. The ChIP was performed with 15 µg of cross-linked chromatin, 5 µg of SETDB1 Antibody (11231-1-AP) or 5 µg of Normal Rabbit IgG (30000-0-AP), and 30 µl of Protein A Magarose Beads. The immunoprecipitated DNA was quantified by real time PCR. Primers are located in the first kb of the transcribed region.



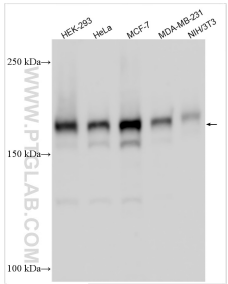
IP result of anti-SETDB1 (IP:11231-1-AP, 3ug; Detection:11231-1-AP 1:1000) with MCF-7 cells lysate 2500ug.



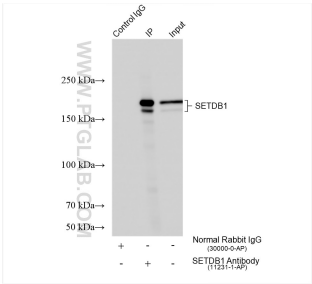
Various lysates were subjected to SDS PAGE followed by western blot with 11231-1-AP (SETDB1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



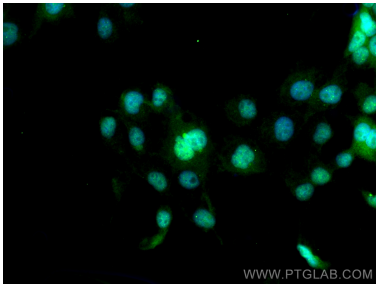
WB result of SETDB1 antibody (11231-1-AP; 1:1000; incubated at room temperature for 1.5 hours) with sh-Control and sh-SETDB1 transfected HeLa cells.



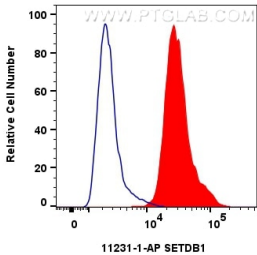
Various lysates were subjected to SDS PAGE followed by western blot with 11231-1-AP (SETDB1 antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



IP result of anti-SETDB1 (IP:11231-1-AP, 4ug; Detection:11231-1-AP 1:3000) with MCF-7 cells lysate 1720 ug.



Immunofluorescent analysis of (4% PFA) fixed A431 cells using SETDB1 antibody (11231-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



1x10⁶ A431 cells were intracellularly stained with 0.4 ug SETDB1 Polyclonal antibody (11231-1-AP) and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.4 ug Rabbit IgG control Rabbit PolyAb (30000-0-AP) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).