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# SETDB1 Polyclonal antibody

Catalog Number:11231-1-AP Featured Product 75 Publications

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## Basic Information

Catalog Number:
11231-1-AP

Size:
700 μg/ml

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 1:500-1:2000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:50-1:500
IF 1:200-1:800

## Applications

Tested Applications:
IF/ICC, IHC, IP, WB, ELISA

Cited Applications:
ChIP, CoIP, IF, IHC, IP, WB

Species Specificity:
human

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 : Jurkat cells, PC-3 cells, human testis tissue, MCF-7 cells, HEK-293 cells, HeLa cells

IP : MCF-7 cells,

IHC : human lung cancer tissue, human testis tissue

IF : A431 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

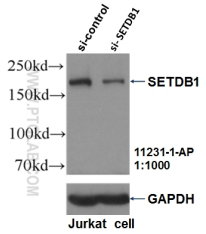
| Author | Pubmed ID | Journal | Application |
|---|---|---|---|
| Keli Chen | 29158805 | J Cancer | chIP |
| Qi Li | 34497149 | J Immunol | ChIP |
| Tiantian Liu | 28890329 | Biochim Biophys Acta | chIP |

## Storage

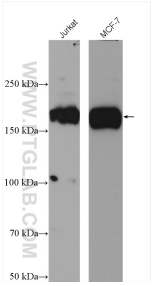
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

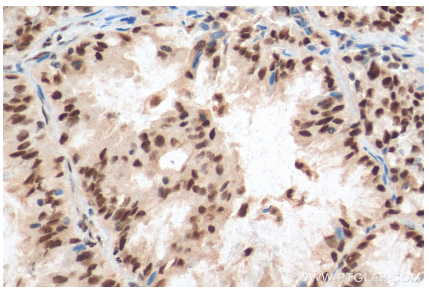
## Selected Validation Data



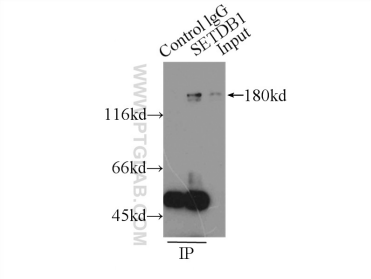

WB result of SETDB1 antibody (11231-1-AP, 1:1000) with si-Control and si-SETDB1 transfected Jurkat cells.



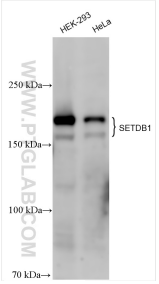

Various lysates were subjected to SDS PAGE followed by western blot with 11231-1-AP (SETDB1 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



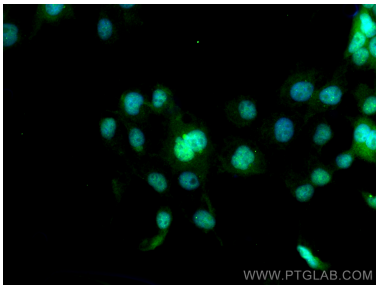
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 11231-1-AP (SETDB1 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).




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.




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).