

Product datasheet

Anti-KMT1E / SETDB1 antibody ab228575

3 Images

Overview

<b>Product name</b>	Anti-KMT1E / SETDB1 antibody
<b>Description</b>	Rabbit polyclonal to KMT1E / SETDB1
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IP, ChIP
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat, Cow 
<b>Immunogen</b>	Recombinant fragment within Human KMT1E/ SETDB1 (intracellular). The exact sequence is proprietary. Database link: <a href="#">Q15047</a>
<b>Positive control</b>	ChIP: HeLa chromatin extract. IP: HeLa nuclear extract. WB: HeLa whole cell lysate.

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.00 Preservative: 0.01% Thimerosal (merthiolate) Constituents: 1.21% Tris, 0.75% Glycine, 20% Glycerol
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab228575** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

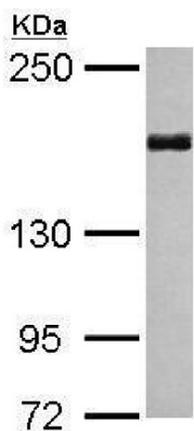
Application	Abreviews	Notes
WB		1/500 - 1/3000. Predicted molecular weight: 143 kDa.

Application	Abreviews	Notes
IP		1/100 - 1/500.
ChIP		Use at an assay dependent concentration.

## Target

<b>Function</b>	Histone methyltransferase that specifically trimethylates 'Lys-9' of histone H3. H3 'Lys-9' trimethylation represents a specific tag for epigenetic transcriptional repression by recruiting HP1 (CBX1, CBX3 and/or CBX5) proteins to methylated histones. Mainly functions in euchromatin regions, thereby playing a central role in the silencing of euchromatic genes. H3 'Lys-9' trimethylation is coordinated with DNA methylation. 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 is targeted to histone H3 by TRIM28/TIF1B, a factor recruited by KRAB zinc-finger proteins.
<b>Tissue specificity</b>	Widely expressed. High expression in testis.
<b>Sequence similarities</b>	Belongs to the histone-lysine methyltransferase family. Suvar3-9 subfamily. Contains 1 MBD (methyl-CpG-binding) domain. Contains 1 post-SET domain. Contains 1 pre-SET domain. Contains 1 SET domain. Contains 2 Tudor domains.
<b>Domain</b>	The pre-SET, SET and post-SET domains are all required for methyltransferase activity. The 347-amino-acid insertion in the SET domain has no effect on the catalytic activity. Isoform 2 lacks all domains required for histone methyltransferase activity.
<b>Cellular localization</b>	Nucleus. Chromosome. Associated with non-pericentromeric regions of chromatin. Excluded from nucleoli and islands of condensed chromatin.

## Images



Western blot - Anti-KMT1E / SETDB1 antibody (ab228575)

Anti-KMT1E / SETDB1 antibody (ab228575) at 1/1000 dilution + HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 30 µg

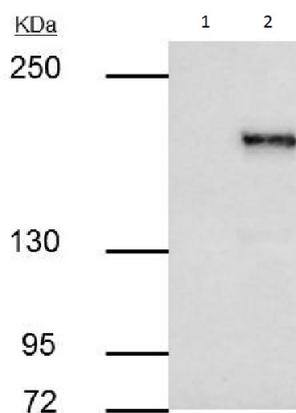
**Secondary**

HRP-conjugated anti-rabbit IgG

Developed using the ECL technique.

**Predicted band size:** 143 kDa

5% SDS-PAGE



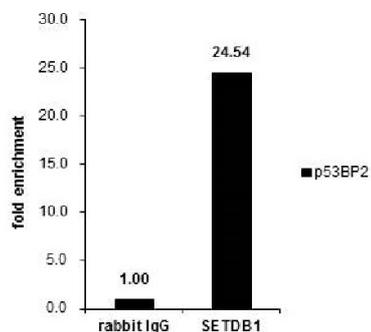
Immunoprecipitation - Anti-KMT1E / SETDB1 antibody (ab228575)

KMT1E / SETDB1 was immunoprecipitated from HeLa (human epithelial cell line from cervix adenocarcinoma) nuclear extract using 4 µg of ab228575. Western blot was performed from the immunoprecipitate using ab228575 at 1/1000 dilution.

Lane 1: Control IgG IP in HeLa nuclear extract.

Lane 2: ab228575 IP in HeLa nuclear extract.

5% SDS-PAGE



ChIP - Anti-KMT1E / SETDB1 antibody (ab228575)

Cross-linked ChIP was performed with HeLa (human epithelial cell line from cervix adenocarcinoma) chromatin extract and 5 µg of either control rabbit IgG or ab228575. The precipitated DNA was detected by PCR with primer set targeting to p53BP2.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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