abcam

Product datasheet

Anti-KMT1E / SETDB1 antibody ab228575

3 Images

Overview

Product name	Anti-KMT1E / SETDB1 antibody
Description	Rabbit polyclonal to KMT1E / SETDB1
Host species	Rabbit
Tested applications	**Suitable for:** WB, IP, ChIP
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat, Cow
Immunogen	Recombinant fragment within Human KMT1E/ SETDB1 (intracellular). The exact sequence is proprietary. Database link: **Q15047**
Positive control	ChIP: HeLa chromatin extract. IP: HeLa nuclear extract. WB: HeLa whole cell lysate.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	pH: 7.00 Preservative: 0.01% Thimerosal (merthiolate) Constituents: 1.21% Tris, 0.75% Glycine, 20% Glycerol (glycerin, glycerine)
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee 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.
IP		1/100 - 1/500.
ChIP		Use at an assay dependent concentration.

Target

Function 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.

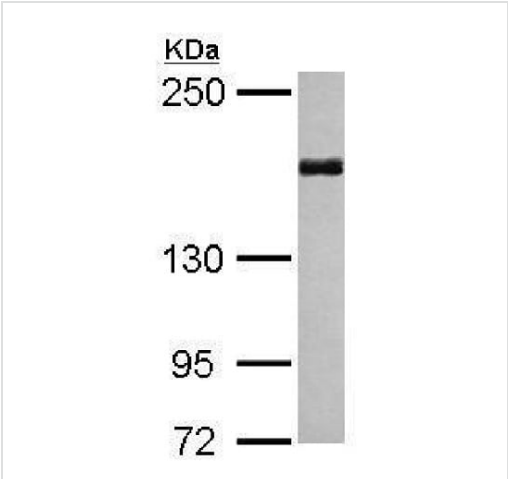
Tissue specificity Widely expressed. High expression in testis.

Sequence similarities 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.

Domain 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.

Cellular localization 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

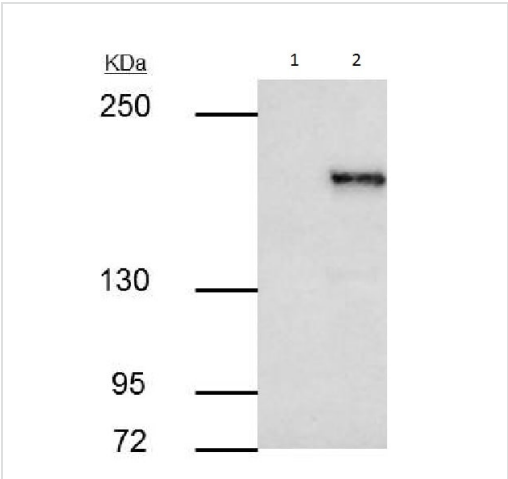
Secondary

HRP-conjugated anti-rabbit IgG

Developed using the ECL technique.

Predicted band size: 143 kDa

5% SDS-PAGE



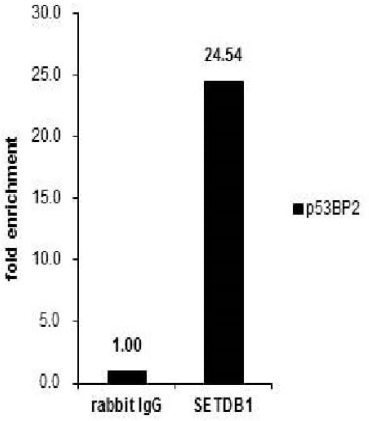
Immunoprecipitation - Anti-KMT1E / SETDB1 antibody (ab228575)

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 p53P2.

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors