


Product datasheet

Anti-KMT1E / SETDB1 antibody ab228984

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: Cow 
Immunogen	Recombinant fragment within Human KMT1E/ SETDB1 (internal sequence). The exact sequence is proprietary. Database link: Q15047
Positive control	ChIP: HeLa chromatin extract. WB: U-87 MG whole cell lysate. IP: HeLa nuclear extract.
General notes	<p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.</p> <p>In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.</p> <p>Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.</p> <p>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, as well as customer reviews and Q&As.</p>

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: 78.99% PBS, 1% BSA, 20% Glycerol (glycerin, glycerine)
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

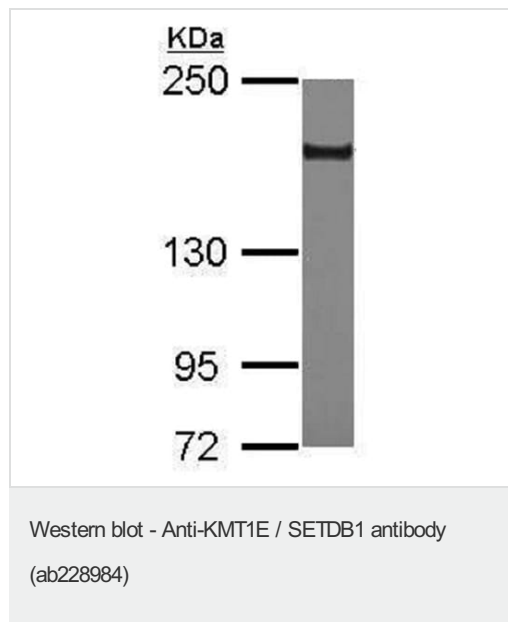
Our [Abpromise guarantee](#) covers the use of **ab228984** in the following tested applications.

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.



Anti-KMT1E / SETDB1 antibody (ab228984) at 1/2000 dilution + U-87 MG (human glioblastoma-astrocytoma epithelial cell line) whole cell lysate at 30 µg

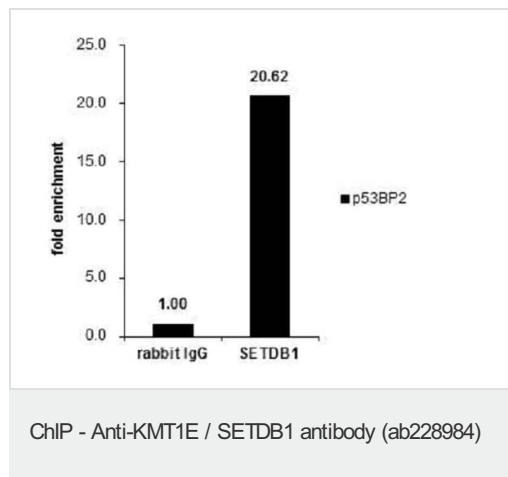
Secondary

HRP-conjugated anti-rabbit IgG

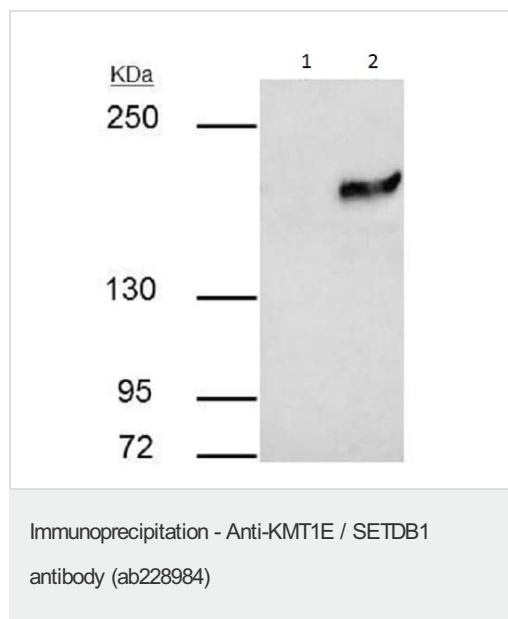
Developed using the ECL technique.

Predicted band size: 143 kDa

5% SDS-PAGE



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 ab228984. The precipitated DNA was detected by PCR with a primer set targeting to P53BP2.



ab228984 immunoprecipitates SETDB1 protein in IP experiments.

IP samples: HeLa (human epithelial cell line from cervix adenocarcinoma) nuclear extract.

Lane 1: Control IP with 4 µg of preimmune Rabbit IgG.

Lane 2: Immunoprecipitation of SETDB1 protein by 4 µg ab228984.

The immunoprecipitated SETDB1 protein was detected by ab228984 at 1/1000 dilution.

5 % SDS-PAGE

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