

Datasheet for ABIN129618

anti-SETDB1 antibody (AA 1050-1075)



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Overview

Quantity:	100 µg
Target:	SETDB1
Binding Specificity:	AA 1050-1075
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC)

Product Details

Purpose:	ESET Antibody
Immunogen:	Immunogen: This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids 1050-1075 of human ESET. Immunogen Type: Conjugated Peptide
Isotype:	IgG
Cross-Reactivity (Details):	Reactivity occurs against human ESET protein.
Characteristics:	Synonyms: rabbit anti-ESET antibody, ERG-associated protein with SET domain, rabbit anti-SETDB1 antibody, SETDB-1, SETDB 1, Histone lysine N methyltransferase antibody, Histone-lysine N-methyltransferase SETDB1 antibody, KMT1E antibody, Lysine N-methyltransferase 1E antibody, SET domain bifurcated 1, H3-K9-HMTase 4, Histone H3-K9 methyltransferase 4
Purification:	This is an affinity purified antibody produced by immunoaffinity chromatography using the

Product Details

immunizing peptide after immobilization to a solid phase.

Sterility: Sterile filtered

Target Details

Target: SETDB1

Alternative Name: SETDB1 ([SETDB1 Products](#))

Background: Background: The SET domain is a highly conserved, approximately 150-amino acid motif implicated in the modulation of chromatin structure. It was originally identified as part of a larger conserved region present in the Drosophila trithorax protein and was subsequently identified in the Drosophila Su(var)3-9 and 'Enhancer of zeste' proteins, from which the acronym SET is derived. Studies have suggested that the SET domain may be a signature of proteins that modulate transcriptionally active or repressed chromatin states through chromatin remodeling activities. ESET functions as a histone methyltransferase by methylation of Lys-9 of histone H3. H3 Lys-9 methylation represents a specific tag for epigenetic transcriptional repression by recruiting HP1 proteins to methylated histones. ESET shows a nuclear localization and is associated with non-pericentromeric regions of chromatin, and is excluded from nucleoli and islands of condensed chromatin. Although ESET is a widely expressed protein, it is highly expressed in the testis.

Gene ID: 9869, 224177469

UniProt: [Q15047](#)

Application Details

Application Notes: Immunohistochemistry Dilution: User Optimized

Application Note: This affinity purified antibody has been tested for use in ELISA and western blotting. Western blotting shows reactivity specific for human ESET detecting a band at approximately 170 kDa. Specific band detection by western blot is blocked by peptide competition by pre-incubating the antibody with the immunizing peptide prior to reaction with the membrane. Reactivity in other immunoassays is unknown.

Western Blot Dilution: 1:1,000 - 1:2,500

ELISA Dilution: 1:10,000 - 1:50,000

Other: User Optimized

Restrictions: For Research Use only

Handling

Format:	Liquid
Concentration:	1.17 mg/mL
Buffer:	Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 Stabilizer: None Preservative: 0.01 % (w/v) Sodium Azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiry Date:	12 months

Publications

Product cited in:	Sarraf, Stancheva: "Methyl-CpG binding protein MBD1 couples histone H3 methylation at lysine 9 by SETDB1 to DNA replication and chromatin assembly." in: Molecular cell, Vol. 15, Issue 4, pp. 595-605, (2004) (PubMed). Wang, An, Cao, Xia, Erdjument-Bromage, Chatton, Tempst, Roeder, Zhang: "mAM facilitates conversion by ESET of dimethyl to trimethyl lysine 9 of histone H3 to cause transcriptional repression." in: Molecular cell, Vol. 12, Issue 2, pp. 475-87, (2003) (PubMed). Schultz, Ayyanathan, Negorev, Maul, Rauscher: "SETDB1: a novel KAP-1-associated histone H3, lysine 9-specific methyltransferase that contributes to HP1-mediated silencing of euchromatic genes by KRAB zinc-finger proteins." in: Genes & development, Vol. 16, Issue 8, pp. 919-32, (2002) (PubMed). Harte, Wu, Carrasquillo, Matera: "Assignment of a novel bifurcated SET domain gene, SETDB1, to human chromosome band 1q21 by in situ hybridization and radiation hybrids." in: Cytogenetics and cell genetics, Vol. 84, Issue 1-2, pp. 83-6, (1999) (PubMed).
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Western Blotting

Image 1. Western blot analysis is shown using Affinity Purified anti-ESET antibody to detect human ESET present in a 293 whole cell lysate. ~30µg of lysate was loaded per lane for SDS-PAGE. Comparison to a molecular weight marker (not shown) indicates a single band of ~170 kDa is detected. Peptide competition (not shown) blocks staining of this band. The blot was incubated with a 1:1000 dilution of the antibody at room temperature for 2 h followed by detection using 800 labeled Goat-a-Rabbit IgG [H&L] diluted 1:5,000 for 45 min. 800 fluorescence image was captured using the Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.