Datasheet for ABIN129618

anti-SETDB1 antibody (AA 1058-1075)

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Overview

Quantity:	100 µg
Target:	SETDB1
Binding Specificity:	AA 1058-1075
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SETDB1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA

Product Details

Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids 1058-1075 of human ESET.
Isotype:	IgG
Characteristics:	Concentration Definition: by UV absorbance at 280 nm

Target Details

Target:	SETDB1
Alternative Name:	ESET (SETDB1 Products)
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

Target Details

	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. Synonyms: Histone lysine N methyltransferase antibody, Histone-lysine N-methyltransferase SETDB1 antibody, KG1T antibody, KIAA00067 antibody, KIAA0067 antibody, KMT1E antibody, Lysine N-methyltransferase 1E antibody
Gene ID:	9869, 224177469
UniProt:	Q15047

Application Details

Application Notes:	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.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1.17 mg/mL
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
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:	-20 °C

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).

Images

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 using800 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.