

SETDB1 Polyclonal Antibody

ALTERNATE NAMES: ESET, H3-K9-HMTase4, KG1T, KIAA0067, KMT1E.

CATALOG #: 6155-100

AMOUNT: 100 µg

HOST: Rabbit

ISOTYPE: IgG

IMMUNOGEN: Fusion protein of human SETDB1

PURIFICATION: Affinity purified

MOLECULAR WEIGHT: 143 kDa

FORM: Liquid

FORMULATION: 100 µg of antibody in 100 µl PBS containing 0.02% sodium azide, 50% glycerol, pH 7.3

SPECIES REACTIVITY: Human, Mouse

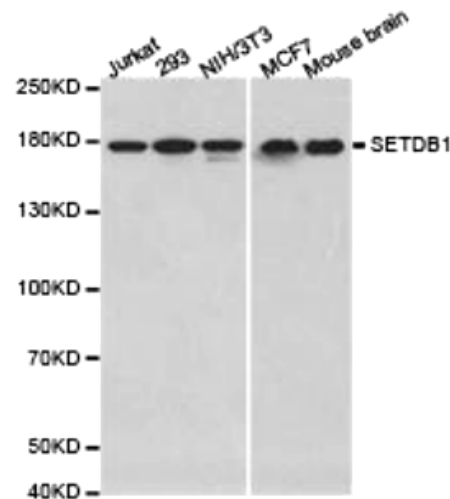
STORAGE CONDITIONS: Can be stored at -20°C or -80°C. Avoid repeated freeze/thaw cycles.

DESCRIPTION: The Erg-associated protein with SET domain (ESET), also known as SET domain, bifurcated 1 (SETDB1) protein, is a member of a family of histone lysine methyltransferases, each of which contains a conserved catalytic SET domain originally identified in Drosophila, Enhancer of zeste, and Trithorax proteins. ESET also contains tudor and methyl-CpG-binding domains, which may coordinate binding to methylated histones and methylated DNA, respectively. ESET methylates histone H3 Lys9, creating a transcriptionally repressive mark that facilitates gene silencing. However, unlike SUV39H histone H3 Lys9 methyltransferases, which function mainly in heterochromatin regions such as pericentric heterochromatin, ESET functions mainly in euchromatic regions to repress gene promoters. ESET interacts with a variety of proteins, including transcription factors (ERG), histone deacetylases (HDAC1/2), DNA methyltransferases (DNMT3A/B) and transcriptional co-repressors (mSin3A/B, MBD1, KAP-1, the ATFA-associated modulator mAM). mAM forms a complex with ESET, stimulating its methyltransferase activity, specifically the conversion of di-methyl to tri-methyl histone H3 Lys9. MBD1 recruits ESET to the CAF-1 complex to facilitate methylation of histone H3 Lys9 during replication-coupled chromatin assembly in S phase. DNMT3A recruits ESET to silenced promoters in cancer cells. ESET may play a role in the pathogenesis of Huntington's disease, since levels of ESET protein and tri-methyl histone H3 Lys9 are both increased in diseased brains.

SPECIFICITY: Cross-reacts with human and mouse samples.

APPLICATION: Western blot: 1:500 – 1:1000, IHC: 1:50 – 1:100, IP: 1:50 – 1:100

Note: This information is only intended as a guide. The optimal dilutions must be determined by the user.



WB of various cell extracts with SETDB1 pAb.

RELATED PRODUCTS:

- Methyl Lysine (Biotin) Antibody (Cat. No. 6124-50)
- EZH1 Antibody (Cat. No. 6123-50)
- EZH2 Antibody (Cat. No. 3242-100)
- 3-Deazaneplanocin (Cat. No. 2060-250, -1000)
- GSK343 (Cat. No. 2281-1, -5)
- GSK126 (Cat. No. 2282-1, -5)
- BIX 01294 (Cat. No. 1678-5, -25)
- Histone methyltransferase (SUV39H1) Antibody (Cat. No. 3942-100)

FOR RESEARCH USE ONLY! Not to be used on humans.