

Mouse Anti-ESET/KMT1E/SETDB1 [G4]: MC0416

Intended Use: For Research Use Only

Description: ERG-associated protein with SET domain (ESET), also designated Histone H3-K9 methyltransferase 4 or SET domain bifurcated 1, is a nuclear protein belonging to the histone-lysine methyltransferase family and to the Suvar3-9 subfamily. It is a highly conserved protein of 150 amino acids that has been implicated in chromatin structure modulation. ESET is excluded from cell nucleoli and areas of condensed chromatin and can associate with the nonpericentromeric regions of chromatin. The gene encoding for this protein, SETDB1, maps to chromosome 1q21.3. ESET is a histone methyltransferase, methylating Lys 9 of Histone H3 and mutations within the SETDB1 gene abolishes its methyltransferase activity. This methylation acts as a tag for epigenetic transcriptional repression by rounding up HP1 proteins to methylated histones. ESET is widely expressed with highest levels found in testis. 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.

Specifications

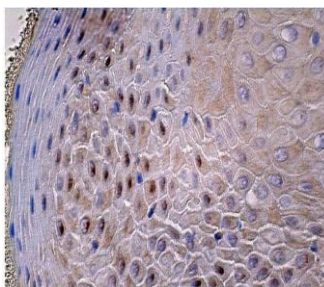
Clone:	G4
Source:	Mouse
Isotype:	IgG2b/k
Reactivity:	Human, mouse, rat
Immunogen:	Human ESET N-terminus aa 1-300
Localization:	Nucleus, cytoplasm
Formulation:	Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN ₃)
Storage:	Store at 2°- 8°C
Applications:	IHC, ELISA, ICC/IF, IP, WB
Package:	

Description	Catalog No.	Size
ESET/KMT1E/SETDB1 Concentrated	MC0416	1 ml

IHC Procedure*

Positive Control Tissue:	Testis
Concentrated Dilution:	50-200
Pretreatment:	Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C
Incubation Time and Temp:	30-60 minutes @ RT
Detection:	Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human oral mucosa tissue stained with anti-ESET using DAB

References:

1. Histone lysine methyltransferase SUV39H1 is a potent target for epigenetic therapy of hepatocellular carcinoma. Chiba T, et al. Int J Cancer. Jan 15;136(2):289-98, 2015.
2. The histone methyltransferase ESET is required for the survival of spermatogonial stem/progenitor cells in mice. An J, et al. Cell Death Dis. Apr 24;5:e1196, 2014.
3. Glycogen phosphorylase isoenzyme BB plasma kinetics is not related to myocardial ischemia induced by exercise stress echo test. Dobric M, et al. Clin Chem Lab Med. Oct;51(10):2029-35, 2013.

Doc. 100-MC0416
Rev. A