Store at -20C
#4498

ETO Antibody

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H M R Mk	Endogenous	60	Rabbit	#Q06455	862

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

ETO Antibody detects endogenous levels of ETO protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to amino acid sequence surrounding Ser270 of human ETO. Antibodies are purified by protein A and peptide affinity chromatography.

Background

ETO belongs to a family of evolutionarily conserved nuclear factors. Although it has no DNA binding domains it is reported to act as a transcriptional corepressor (1). It is best characterized as the fusion partner of AML1 in acute myeloid leukemia with the t(8;21) translocation which gives rise to the AML-ETO fusion protein (2). AML1 is a transcription factor that is involved in the differentiation of all hematopoietic lineages. The fusion protein lacks the activation domain of AML1 and behaves as a dominant negative AML1, repressing AML1 target genes. AML-ETO also causes activation of other genes through a mechanism that involves Bcl-2 and enhanced expression of p21 waf1/cip1 (3,4). The AML-ETO fusion protein is thought to cause the expansion of a hematopoietic stem cell population that has limited lineage commitment and genomic instability (5). Recent evidence derived from chromatin immunoprecipitation (ChIP) experiments has demonstrated that ETO may play a role in the regulation of Notch target genes, and AML-ETO has been shown to disrupt repression of Notch target genes (6). Therefore, both AML and Notch target genes are deregulated by AML-ETO. Epigenetic silencing of the microRNA-223 gene has also been attributed to activities of AML-ETO, contributing to the differentiation block in t(8;21) leukemia (7).

Background References

1. Davis, J.N. et al. (2003) *Gene* 303, 1-10.
2. Downing, J.R. et al. (1993) *Blood* 81, 2860-5.
3. Klampfer, L. et al. (1996) *Proc Natl Acad Sci USA* 93, 14059-64.
4. Peterson, L.F. et al. (2007) *Blood* 109, 4392-8.
5. Elagib, K.E. and Goldfarb, A.N. (2007) *Cancer Lett* 251, 179-86.
6. Salat, D. et al. (2008) *Mol Cell Biol* 28, 3502-12.
7. Nervi, C. et al. *Epigenetics* 3, 1-4.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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