

ETO (S-19): sc-9736

BACKGROUND

ETO and ETO-2, which are alternatively designated MTG8 and MTG16, respectively, are members of the ETO transcription factor family. These transcription factors are characterized by a zinc-finger domain and four conserved domains, of which domain II is required for dimerization between family members. ETO and ETO-2 may function to mediate interactions between DNA binding proteins and transcriptional regulators, such as N-CoR. Frequently, the t(8;21) translocation of ETO produces the AML-1/ETO oncoprotein, which consists of the first 177 amino acids of AML-1 and all but the first 30 amino acids of ETO. AML-1/ETO expression is observed in 12–15% of acute myelogenous, M2 subtype leukemias. The AML-1/ETO fusion proteins associate with multi-meric N-CoR/mSin3/HDAC1 complexes, block differentiation and induce transcriptional repression by altering chromatin remodeling.

REFERENCES

1. Erickson, P.F., et al. 1994. The ETO portion of acute myeloid leukemia t(8;21) fusion transcript encodes a highly evolutionarily conserved, putative transcription factor. *Cancer Res.* 54: 1782-1786.
2. Erickson, P.F., et al. 1996. ETO and AML-1 phosphoproteins are expressed in CD34⁺ hematopoietic progenitors: implications for t(8;21) leukemogenesis and monitoring residual disease. *Blood* 88: 1813-1823.
3. Wolford, J.K., et al. 1998. Structure and expression of the human MTG8/ETO gene. *Gene* 212: 103-109.
4. Wang, J., et al. 1998. ETO, fusion partner in t(8;21) acute myeloid leukemia, represses transcription by interaction with the human N-CoR/mSin3/HDAC1 complex. *Proc. Natl. Acad. Sci. USA* 95: 10860-10865.
5. Westendorf, J.J., et al. 1998. The t(8;21) fusion product, AML-1-ETO, associates with C/EBP- α , inhibits C/EBP- α -dependent transcription, and blocks granulocytic differentiation. *Mol. Cell. Biol.* 18: 322-333.

CHROMOSOMAL LOCATION

Genetic locus: RUNX1T1 (human) mapping to 8q21.3; Runx1t1 (mouse) mapping to 4 A1.

SOURCE

ETO (S-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ETO of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-9736 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-9736 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

ETO (S-19) is recommended for detection of ETO of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ETO (S-19) is also recommended for detection of ETO in additional species, including equine, canine, porcine and avian.

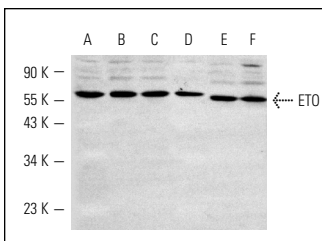
Suitable for use as control antibody for ETO siRNA (h): sc-35342, ETO siRNA (m): sc-35343, ETO shRNA Plasmid (h): sc-35342-SH, ETO shRNA Plasmid (m): sc-35343-SH, ETO shRNA (h) Lentiviral Particles: sc-35342-V and ETO shRNA (m) Lentiviral Particles: sc-35343-V.

ETO (S-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of ETO: 70 kDa.

Positive Controls: AML-193 whole cell lysate, CCRF-CEM cell lysate: sc-2225 or CCRF-HSB-2 cell lysate: sc-2265.

DATA



ETO (S-19): sc-9736. Western blot analysis of ETO expression in AML-193 (A), CCRF-CEM (B), CCRF-HSB-2 (C), HL-60 (D), HuT 78 (E) and MOLT-4 (F) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Zhang, J., et al. 2004. E protein silencing by the leukemogenic AML1-ETO fusion protein. *Science* 305: 1286-1289.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **ETO (3H11): sc-134335**, our highly recommended monoclonal alternative to ETO (S-19).