

ETO-2 (G-20): sc-9741

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

- 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.
- 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.
- Wolford, J.K., et al. 1998. Structure and expression of the human MTG8/ETO gene. *Gene* 212: 103-109.
- 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.
- 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: CBFA2T3 (human) mapping to 16q24; Cbfa2t3h (mouse) mapping to 8.

SOURCE

ETO (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ETO-2 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.

Blocking peptide available for competition studies, sc-9741 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-9741 X, 200 μ g/0.1 ml.

RESEARCH USE

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

APPLICATIONS

ETO-2 (G-20) is recommended for detection of ETO-2 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).

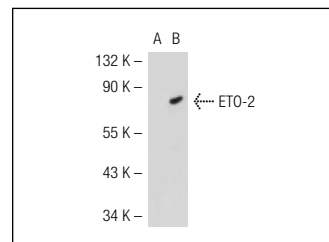
Suitable for use as control antibody for ETO-2 siRNA (h): sc-35344, ETO-2 siRNA (m): sc-35345, ETO-2 shRNA Plasmid (h): sc-35344-SH, ETO-2 shRNA Plasmid (m): sc-35345-SH, ETO-2 shRNA (h) Lentiviral Particles: sc-35344-V and ETO-2 shRNA (m) Lentiviral Particles: sc-35345-V.

ETO-2 (G-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

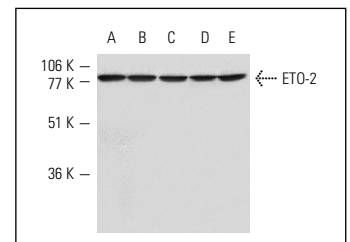
Molecular Weight of ETO-2: 76 kDa.

Positive Controls: ETO-2 (h): 293T Lysate: sc-116819, AML-193 whole cell lysate or CCRF-CEM cell lysate: sc-2225.

DATA



ETO-2 (G-20): sc-9741. Western blot analysis of ETO-2 expression in non-transfected: sc-117752 (A) and human ETO-2 transfected: sc-116819 (B) 293T whole cell lysates.



ETO-2 (G-20): sc-9741. Western blot analysis of ETO-2 expression in AML-193 (A), CCRF-CEM (B), Hut 78 (C), HL-60 (D) and MOLT-4 (E) whole cell lysates.

SELECT PRODUCT CITATIONS

- Chyla, B.J., et al. 2008. Deletion of MTG16, a target of t(16;21), alters hematopoietic progenitor cell proliferation and lineage allocation. *Mol. Cell. Biol.* 28: 6234-6247.
- Anguita, E., et al. 2009. Gfi-1B controls its own expression binding to multiple sites. *Haematologica*. E-published.

STORAGE

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


 MONOS
Satisfation
Guaranteed

Try **ETO-2 (C-12): sc-373691** or **ETO-2 (D-4): sc-166058**, our highly recommended monoclonal alternatives to ETO-2 (G-20).