SANTA CRUZ BIOTECHNOLOGY, INC.

Ets-1 (5G108): sc-71078

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Ets-1 is the prototype member of a family of genes identified on the basis of homology to the v-Ets oncogene isolated from the E26 erythroblastosis virus. This family of genes currently includes Ets-1, Ets-2, Erg-1–3, Elk-1, Elf-1, Elf-5, NERF, PU.1, PEA3, ERM, FEV, ER81, Fli-1, TEL, Spi-B, ESE-1, ESE-3A, Net, ABT1 and ERF. Members of the Ets gene family exhibit varied patterns of tissue expression, and share a highly conserved carboxy-terminal domain containing a sequence related to the SV40 large T antigen nuclear localization signal sequence. This conserved domain is essential for Ets-1 binding to DNA and is likely to be responsible for the DNA binding activity of all members of the Ets gene family. Several of these proteins have been shown to recognize similar motifs in DNA that share a centrally located 5'-GGAA-3' element. Evidence indicates that the DNA binding activity by Ets-1 is regulated at the level of phosphorylation.

REFERENCES

1. Ghysdael, J., et al. 1986. Identification and preferential expression in thymic and bursal lymphocytes of a c-Ets oncogene-encoded M_r 54,000 cytoplasmic protein. Proc. Natl. Acad. Sci. USA 83: 1714-1718.
2. Rao, V.N., et al. 1987. Erg, a human Ets-related gene on chromosome 21: alternative splicing, polyadenylation, and translation. Science 237: 635-639.
3. Rao, V.N., et al. 1989. Elk, tissue-specific Ets-related genes on chromosomes X and 14 near translocation breakpoints. Science 244: 66-70.
4. Burtis, K.C., et al. 1990. The *Drosophila* 74EF early puff contains E74, a complex ecdysone-inducible gene that encodes two Ets-related proteins. Cell 61: 85-99.
5. Xin, J.H., et al. 1992. Molecular cloning and characterization of PEA3, a new member of the Ets oncogene family that is differentially expressed in mouse embryonic cells. Genes Dev. 6: 481-496.
6. Pongubala, J.M.R., et al. 1993. Effect of PU.1 phosphorylation on interaction with NF-EM5 and transcriptional activation. Science 259: 1622-1625.

CHROMOSOMAL LOCATION

Genetic locus: ETS1 (human) mapping to 11q24.3; Ets1 (mouse) mapping to 9 A4.

SOURCE

Ets-1 (5G108) is a mouse monoclonal antibody raised against amino acids 226-454 of Ets-1 of human origin.

PRODUCT

Each vial contains 500 µl culture supernatant containing IgG_1 with < 0.1% sodium azide.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

APPLICATIONS

Ets-1 (5G108) is recommended for detection of Ets-1 of mouse and human origin by Western Blotting (starting dilution to be determined by researcher, dilution range), immunoprecipitation [10-20 µl per 100-500 µg of total protein (1 ml of cell lysate)] , immunofluorescence (starting dilution to be determined by researcher, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:50-1:500).

Suitable for use as control antibody for Ets-1 siRNA (h): sc-29309, Ets-1 siRNA (m): sc-35346, Ets-1 shRNA Plasmid (h): sc-29309-SH, Ets-1 shRNA Plasmid (m): sc-35346-SH, Ets-1 shRNA (h) Lentiviral Particles: sc-29309-V and Ets-1 shRNA (m) Lentiviral Particles: sc-35346-V.

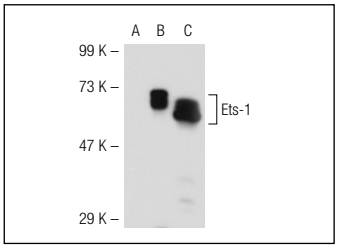
Molecular Weight of Ets-1: 55 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, CCRF-CEM nuclear extract: sc-2146 or HeLa nuclear extract: sc-2120.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2050 or ABC: sc-2017 mouse IgG Staining Systems.

DATA



Ets-1 (5G108): sc-71078. Western blot analysis of Ets-1 expression in non-transfected: sc-117752 (**A**) and mouse Ets-1 transfected: sc-120130 (**B**) 293T whole cell lysates and CCRF-CEM nuclear extract (**C**).

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.