

Ets-1 (C-4): sc-55581

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, 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.

CHROMOSOMAL LOCATION

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

SOURCE

Ets-1 (C-4) is a mouse monoclonal antibody raised against amino acids 131-280 of Ets-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain 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-55581 X, 200 µg/0.1 ml.

Ets-1 (C-4) is available conjugated to agarose (sc-55581 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-55581 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-55581 PE), fluorescein (sc-55581 FITC), Alexa Fluor® 488 (sc-55581 AF488), Alexa Fluor® 546 (sc-55581 AF546), Alexa Fluor® 594 (sc-55581 AF594) or Alexa Fluor® 647 (sc-55581 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-55581 AF680) or Alexa Fluor® 790 (sc-55581 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

Ets-1 (C-4) is recommended for detection of Ets-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

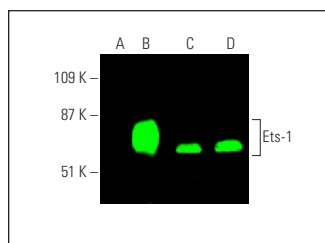
Suitable for use as control antibody for Ets-1 siRNA (h): sc-29309, Ets-1 siRNA (m2): sc-270370, Ets-1 siRNA (r): sc-156062, Ets-1 shRNA Plasmid (h): sc-29309-SH, Ets-1 shRNA Plasmid (m2): sc-270370-SH, Ets-1 shRNA Plasmid (r): sc-156062-SH, Ets-1 shRNA (h) Lentiviral Particles: sc-29309-V, Ets-1 shRNA (m2) Lentiviral Particles: sc-270370-V and Ets-1 shRNA (r) Lentiviral Particles: sc-156062-V.

Ets-1 (C-4) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

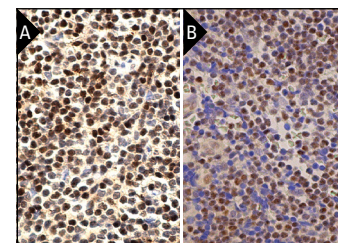
Molecular Weight of Ets-1: 55 kDa.

Positive Controls: Ets-1 (m): 293T Lysate: sc-120130, Jurkat nuclear extract: sc-2132 or CCRF-CEM nuclear extract: sc-2146.

DATA



Ets-1 (C-4): sc-55581. Near-infrared 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 Jurkat (C) and CCRF-CEM (D) nuclear extracts. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.



Ets-1 (C-4): sc-55581. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing nuclear staining of cells in non-germinal center (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing nuclear staining of cells in germinal center and cells in non-germinal center (B).

SELECT PRODUCT CITATIONS

1. Xu, C., et al. 2010. MicroRNA-193b regulates proliferation, migration and invasion in human hepatocellular carcinoma cells. *Eur. J. Cancer* 46: 2828-2836.
2. Wang, C., et al. 2022. Lineage-selective super enhancers mediate core regulatory circuitry during adipogenic and osteogenic differentiation of human mesenchymal stem cells. *Cell Death Dis.* 13: 866.
3. Ghosh, D., et al. 2023. Ets1 facilitates EMT/invasion through Drp1-mediated mitochondrial fragmentation in ovarian cancer. *iScience* 26: 107537.

RESEARCH USE

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