

Elf-1 (D-4): sc-373772

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. Elf-1 is a lymphoid-specific member of the Ets family that has been shown to regulate inducible gene expression during T cell activation. Elf-1 contains a sequence motif that is highly related to the Rb-binding sites common to several viral oncoproteins and binds to the pocket region of Rb both *in vivo* and *in vitro*.

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. Kola, I., et al. 1993. The Ets1 transcription factor is widely expressed during murine embryo development and is associated with mesodermal cells involved in morphogenetic processes such as organ formation. *Proc. Natl. Acad. Sci. USA* 90: 7588-7592.

CHROMOSOMAL LOCATION

Genetic locus: ELF1 (human) mapping to 13q14.11; Elf1 (mouse) mapping to 14 D3.

SOURCE

Elf-1 (D-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 595-619 at the C-terminus of Elf-1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} 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-373772 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-373772 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Elf-1 (D-4) is recommended for detection of Elf-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 Elf-1 siRNA (h): sc-37837, Elf-1 siRNA (m): sc-37838, Elf-1 shRNA Plasmid (h): sc-37837-SH, Elf-1 shRNA Plasmid (m): sc-37838-SH, Elf-1 shRNA (h) Lentiviral Particles: sc-37837-V and Elf-1 shRNA (m) Lentiviral Particles: sc-37838-V.

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

Molecular Weight of cytoplasmic Elf-1: 80 kDa.

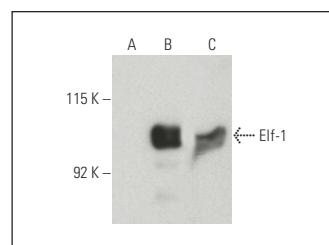
Molecular Weight of nuclear Elf-1: 98 kDa.

Positive Controls: Elf-1 (h): 293T Lysate: sc-114811, Ramos cell lysate: sc-2216 or Ramos nuclear extract: sc-2153.

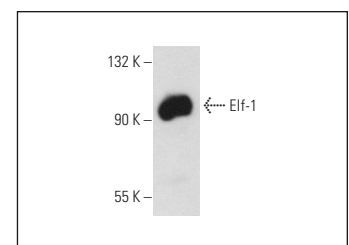
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Elf-1 (D-4): sc-373772. Western blot analysis of Elf-1 expression in non-transfected: sc-117752 (A) and human Elf-1 transfected: sc-114811 (B) 293T whole cell lysates and Ramos nuclear extract (C).



Elf-1 (D-4): sc-373772. Western blot analysis of Elf-1 expression in Ramos whole cell lysate.

STORAGE

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

RESEARCH USE

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