

# Elf-1 (C-4): sc-133096

## 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<sub>r</sub> 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: ELF1 (human) mapping to 13q14.11; Elf1 (mouse) mapping to 14 D3.

## SOURCE

Elf-1 (C-4) is a mouse monoclonal antibody raised against amino acids 451-619 mapping at the C-terminus of Elf-1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> 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-133096 X, 200 µg/0.1 ml.

Elf-1 (C-4) is available conjugated to agarose (sc-133096 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-133096 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-133096 PE), fluorescein (sc-133096 FITC), Alexa Fluor® 488 (sc-133096 AF488), Alexa Fluor® 546 (sc-133096 AF546), Alexa Fluor® 594 (sc-133096 AF594) or Alexa Fluor® 647 (sc-133096 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-133096 AF680) or Alexa Fluor® 790 (sc-133096 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

## STORAGE

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

## APPLICATIONS

Elf-1 (C-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 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 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.

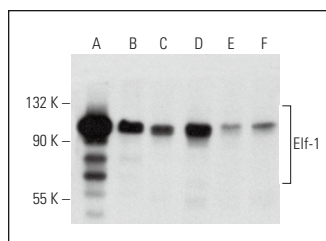
Elf-1 (C-4) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of cytoplasmic Elf-1: 80 kDa.

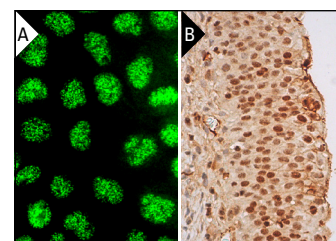
Molecular Weight of nuclear Elf-1: 98 kDa.

Positive Controls: Ramos cell lysate: sc-2216, NIH/3T3 whole cell lysate: sc-2210 or RAW 264.7 whole cell lysate: sc-2211.

## DATA



Elf-1 (C-4): sc-133096. Western blot analysis of Elf-1 expression in Ramos (A), KARPAS-299 (B), NIH/3T3 (C), RAW 264.7 (D), NRK (E) and RAT2 (F) whole cell lysates.



Elf-1 (C-4): sc-133096. Immunofluorescence staining of formalin-fixed A-431 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing nuclear staining of urothelial cells (B).

## SELECT PRODUCT CITATIONS

1. Studd, J.B., et al. 2019. Genetic predisposition to B-cell acute lymphoblastic leukemia at 14q11.2 is mediated by a CEBPE promoter polymorphism. *Leukemia* 33: 1-14.
2. Hu, M., et al. 2021. ELF1 transcription factor enhances the progression of glioma via ATF5 promoter. *ACS Chem. Neurosci.* 12: 1252-1261.
3. Franklin, R., et al. 2022. Regulation of chromatin accessibility by the histone chaperone CAF-1 sustains lineage fidelity. *Nat. Commun.* 13: 2350.
4. Nicosia, L., et al. 2023. Therapeutic targeting of EP300/CBP by bromodomain inhibition in hematologic malignancies. *Cancer Cell* 41: 2136-2153.e13.

## RESEARCH USE

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