SANTA CRUZ BIOTECHNOLOGY, INC.

Elk-1 (H-160): sc-22804

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.

REFERENCES

1. Ghysdael, J., et al. 1986. Identification and preferential expression in thymic and bursal lymphocytes of a c-Ets oncogene-encoded Mr 54,000 cytoplasmic protein. Proc. Natl. Acad. Sci. USA 83: 1714-1718.
2. 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: ELK1 (human) mapping to Xp11.23; Elk1 (mouse) mapping to X A1.3.

SOURCE

Elk-1 (H-160) is a rabbit polyclonal antibody raised against amino acids 161-320 mapping within an internal region of Elk-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-22804 X, 200 µg/0.1 ml.

APPLICATIONS

Elk-1 (H-160) is recommended for detection of Elk-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Elk-1 siRNA (h): sc-35290, Elk-1 siRNA (m): sc-35291, Elk-1 shRNA Plasmid (h): sc-35290-SH, Elk-1 shRNA Plasmid (m): sc-35291-SH, Elk-1 shRNA (h) Lentiviral Particles: sc-35290-V and Elk-1 shRNA (m) Lentiviral Particles: sc-35291-V.

Elk-1 (H-160) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

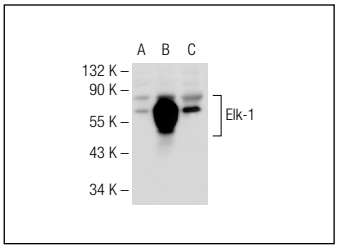
Molecular Weight of Elk-1: 62 kDa.

Positive Controls: Elk-1 (h): 293T Lysate: sc-116606.

STORAGE

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

DATA



Elk-1 (H-160): sc-22804. Western blot analysis of Elk-1 expression in non-transfected 293T: sc-117752 (**A**), human Elk-1 transfected 293T: sc-116606 (**B**) and HeLa (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Barrett, L.E., et al. 2006. Elk-1 associates with the mitochondrial permeability transition pore complex in neurons. Proc. Natl. Acad. Sci. USA 103: 5155-5160.
2. Gilkes, D.M., et al. 2008. Regulation of MDMX expression by mitogenic signaling. Mol. Cell. Biol. 28: 1999-2010.
3. Hasan, R.N. and Schafer, A.I. 2008. Hemin upregulates Egr-1 expression in vascular smooth muscle cells via reactive oxygen species ERK-1/2-Elk-1 and NFκB. Circ. Res. 102: 42-50.
4. Evans, E.L., et al. 2011. Dimer formation and conformational flexibility ensure cytoplasmic stability and nuclear accumulation of Elk-1. Nucleic Acids Res. 39: 6390-6402.
5. Foxler, D.E., et al. 2011. PU.1 is a major transcriptional activator of the tumour suppressor gene LIMD1. FEBS Lett. 585: 1089-1096.
6. Zhang, X., et al. 2011. Genome-wide analysis reveals PADI4 cooperates with Elk-1 to activate c-Fos expression in breast cancer cells. PLoS Genet. 7: e1002112.
7. Demir, O., et al. 2012. Elk-1 interacts with dynein upon serum stimulation but independent of serine 383 phosphorylation. Cell. Mol. Neurobiol. 32: 18518-18519.

RESEARCH USE

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