

Elk-1 (3H6D12): sc-65986

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 cets oncogene-encoded M_r 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.

SOURCE

Elk-1 (3H6D12) is a mouse monoclonal antibody raised against purified truncated recombinant Elk-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.

STORAGE

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

APPLICATIONS

Elk-1 (3H6D12) is recommended for detection of Elk-1 of 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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

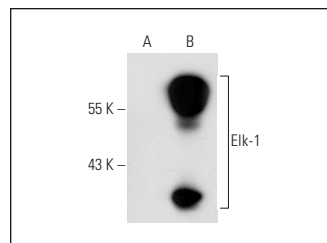
Molecular Weight of Elk-1: 62 kDa.

Positive Controls: Elk-1 (h): 293T Lysate: sc-116606 or HeLa whole cell lysate: sc-2200.

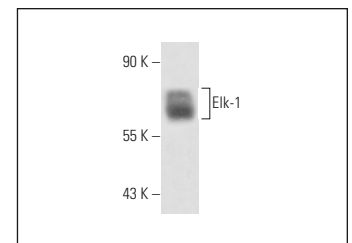
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



Elk-1 (3H6D12): sc-65986. Western blot analysis of Elk-1 expression in non-transfected: sc-117752 (A) and human Elk-1 transfected: sc-116606 (B) 293T whole cell lysates.




Elk-1 (3H6D12): sc-65986. Western blot analysis of Elk-1 expression in HeLa whole cell lysate.

SELECT PRODUCT CITATIONS

1. Hennenberg, M., et al. 2012. Silodosin inhibits noradrenaline-activated transcription factors Elk1 and SRF in human prostate smooth muscle. *PLoS ONE* 7: e50904.
2. Patki, M., et al. 2013. The Ets domain transcription factor Elk1 directs a critical component of growth signaling by the androgen receptor in prostate cancer cells. *J. Biol. Chem.* 288: 11047-11065.
3. Hennenberg, M., et al. 2013. The cAMP effector EPAC activates Elk1 transcription factor in prostate smooth muscle, and is a minor regulator of α₁-adrenergic contraction. *J. Biomed. Sci.* 20: 46.
4. Shankar, E., et al. 2016. Signaling network controlling androgenic repression of c-Fos in prostate adenocarcinoma cells. *J. Biol. Chem.* 291: 5512-5526.
5. Tang, P., et al. 2019. Activin B stimulates mouse vibrissae growth and regulates cell proliferation and cell cycle progression of hair matrix cells through ERK signaling. *Int. J. Mol. Sci.* 20: 853.
6. He, G.H., et al. 2023. rs77283072 influences breast cancer susceptibility by regulating CDKN2A expression. *Oncol. Lett.* 25: 76.

RESEARCH USE

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



See **Elk-1 (E-5): sc-365876** for Elk-1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.