

TDP2 (K-13): sc-47871

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. The Ets-1-associated protein II (EAPII, also designated TDP2) interacts with Ets-1 as a negative modulator of Ets-1 transcriptional activity. TDP2 predominantly localizes to the nucleus.

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.
2. Reddy, E.S.P., et al. 1987. The Erg gene: a human gene related to the Ets oncogene. *Proc. Natl. Acad. Sci. USA* 84: 6131-6135.
3. Rao, V.N., et al. 1987. Erg, a human Ets-related gene on chromosome 21: alternative splicing, polyadenylation, and translation. *Science* 237: 635.
4. Rao, V.N., et al. 1989. Elk, tissue-specific Ets-related genes on chromosomes X and 14 near translocation breakpoints. *Science* 244: 66-70.
5. 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.
6. Fisher, C.L., et al. 1991. Ligation of membrane Ig leads to calcium-mediated phosphorylation of the proto-oncogene product, Ets-1. *J. Immunol.* 146: 1743-1749.
7. Xin, J.-H., et al. 1992. Molecular cloning and characterization of PEA3, a new member of the Ets oncogene family that is differentially expressed in mouse embryonic cells. *Genes Dev.* 6: 481-496.
8. Pei, H., et al. 2003. EAPII interacts with ETS1 and modulates its transcriptional function. *Oncogene* 22: 2699-709.

CHROMOSOMAL LOCATION

Genetic locus: TDP2 (human) mapping to 6p22.3; Tdp2 (mouse) mapping to 13 A3.1

SOURCE

TDP2 (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TDP2 of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 µg IgG 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-47871 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-47871 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TDP2 (K-13) is recommended for detection of TDP2 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

TDP2 (K-13) is also recommended for detection of TDP2 in additional species, including porcine.

Suitable for use as control antibody for TDP2 siRNA (h): sc-60566, TDP2 siRNA (m): sc-60567, TDP2 shRNA Plasmid (h): sc-60566-SH, TDP2 shRNA Plasmid (m): sc-60567-SH, TDP2 shRNA (h) Lentiviral Particles: sc-60566-V and TDP2 shRNA (m) Lentiviral Particles: sc-60567-V.

TDP2 (K-13) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TDP2: 49 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **TDP2 (H-6): sc-377280** or **TDP2 (16): sc-130314**, our highly recommended monoclonal alternatives to TDP2 (K-13).