

TDP2 (H-6): sc-377280

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: 1714-1718.
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: 635-639.
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.

CHROMOSOMAL LOCATION

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

SOURCE

TDP2 (H-6) is a mouse monoclonal antibody raised against amino acids 63-362 mapping at the C-terminus of EAPII 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.

TDP2 (H-6) is available conjugated to agarose (sc-377280 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377280 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377280 PE), fluorescein (sc-377280 FITC), Alexa Fluor® 488 (sc-377280 AF488), Alexa Fluor® 546 (sc-377280 AF546), Alexa Fluor® 594 (sc-377280 AF594) or Alexa Fluor® 647 (sc-377280 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377280 AF680) or Alexa Fluor® 790 (sc-377280 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

TDP2 (H-6) is recommended for detection of TDP2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

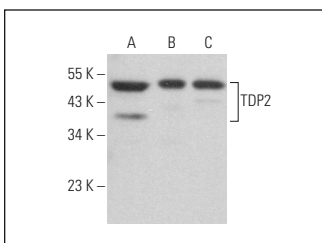
Molecular Weight of TDP2: 49 kDa.

Positive Controls: TDP2 (h2): 293T Lysate: sc-370234, U266 whole cell lysate: sc-364800 or mouse testis extract: sc-2405.

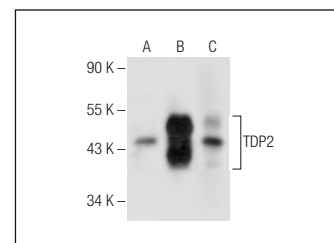
RECOMMENDED SUPPORT REAGENTS

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



TDP2 (H-6): sc-377280. Western blot analysis of TDP2 expression in F9 (A), U266 (B) and NTERA-2 cl.D1 (C) whole cell lysates.



TDP2 (H-6): sc-377280. Western blot analysis of TDP2 expression in non-transfected: sc-117752 (A) and human TDP2 transfected: sc-370234 (B) 293T whole cell lysates and mouse testis tissue extract (C).

SELECT PRODUCT CITATIONS

1. Ashour, M.E., et al. 2021. High temperature drives topoisomerase mediated chromosomal break repair pathway choice. *Cancers* 13: 2315.

STORAGE

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

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