

TARDBP (S-14): sc-131799

BACKGROUND

TARDBP (TAR DNA binding protein), also known as TDP-43, is a nuclear protein that contains two RRM (RNA recognition motif) domains. Ubiquitously expressed with highest levels found in placenta, lung, pancreas, spleen and genital tract, TARDBP functions as a DNA-binding protein and specifically binds to the TAR DNA sequence motifs of HIV. Via this association with TAR motifs, TARDBP acts as a transcriptional repressor and inhibits HIV-1 transcription. TARDBP can also function as a negative regulator of splicing activity and is known to be involved in the splicing of CFTR (cystic fibrosis transmembrane receptor). In addition, TARDBP is a major component of ubiquitin-positive inclusion bodies that are prominent in many neurodegenerative diseases. This suggests that TARDBP may play a role in the development of neurodegenerative disorders. Due to alternative splicing events, various isoforms exist for TARDBP.

REFERENCES

1. Ou, S.H., et al. 1995. Cloning and characterization of a novel cellular protein, TDP-43, that binds to human immunodeficiency virus type 1 TAR DNA sequence motifs. *J. Virol.* 69: 3584-3596.
2. Buratti, E., et al. 2001. Nuclear factor TDP-43 and SR proteins promote *in vitro* and *in vivo* CFTR exon 9 skipping. *EMBO J.* 20: 1774-1784.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605078. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Groman, J.D., et al. 2004. Variation in a repeat sequence determines whether a common variant of the cystic fibrosis transmembrane conductance regulator gene is pathogenic or benign. *Am. J. Hum. Genet.* 74: 176-179.
5. Buratti, E., et al. 2004. Nuclear factor TDP-43 binds to the polymorphic TG repeats in CFTR intron 8 and causes skipping of exon 9: a functional link with disease penetrance. *Am. J. Hum. Genet.* 74: 1322-1325.
6. Wang, H.Y., et al. 2004. Structural diversity and functional implications of the eukaryotic TDP gene family. *Genomics* 83: 130-139.

CHROMOSOMAL LOCATION

Genetic locus: TARDBP (human) mapping to 1p36.22; Tardbp (mouse) mapping to 4 E2.

SOURCE

TARDBP (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TARDBP of human origin.

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.

PRODUCT

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

Blocking peptide available for competition studies, sc-131799 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TARDBP (S-14) is recommended for detection of TARDBP of mouse, rat 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).

TARDBP (S-14) is also recommended for detection of TARDBP in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TARDBP siRNA (h): sc-88586, TARDBP siRNA (m): sc-154072, TARDBP shRNA Plasmid (h): sc-88586-SH, TARDBP shRNA Plasmid (m): sc-154072-SH, TARDBP shRNA (h) Lentiviral Particles: sc-88586-V and TARDBP shRNA (m) Lentiviral Particles: sc-154072-V.

Molecular Weight of TARDBP: 43 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, Hep G2 cell lysate: sc-2227 or Jurkat whole cell lysate: sc-2204.

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.

RESEARCH USE

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


 MONOS
Satisfaction
Guaranteed

Try **TARDBP (E-10): sc-376311** or **TARDBP (H-8): sc-376532**, our highly recommended monoclonal alternatives to TARDBP (S-14).