

TARDBP (P-24): sc-102127

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 (P-24) is a purified rabbit polyclonal antibody raised against TARDBP of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

RESEARCH USE

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

APPLICATIONS

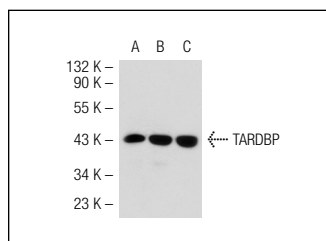
TARDBP (P-24) is recommended for detection of TARDBP of mouse, rat, human and dog origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 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.

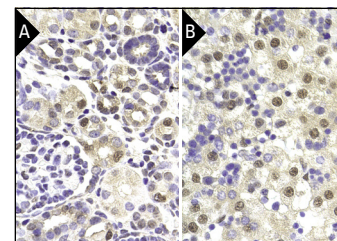
Molecular Weight of TARDBP: 43 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, TARDBP (h): 293T Lysate: sc-126075 or A-431 whole cell lysate: sc-2201.

DATA



TARDBP (P-24): sc-102127. Western blot analysis of TARDBP expression in non-transfected 293T: sc-117752 (A), mouse TARDBP transfected 293T: sc-126075 (B) and Hep G2 (C) whole cell lysates.



TARDBP (P-24): sc-102127. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney (A) and human liver (B) tissue showing nuclear and cytoplasmic staining.

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.

MONOS
Satisfaction
Guaranteed

Try **TARDBP (E-10): sc-376311** or **TARDBP (H-8): sc-376532**, our highly recommended monoclonal alternatives to TARDBP (P-24).