12170 Flint Place
Poway, CA 92064
www.prosci-inc.com

Toll Free: 888-513-9525
Tel: 858-513-2638
Fax: 858-513-2692
techsupport@prosci-inc.com

TDP43 Antibody

TDP43 (NT): TAR DNA binding protein, TARDBP

CATALOG No.:4283

BACKGROUND:

TDP43 was initially identified as a novel cellular protein that bound to HIV-1 virus TAR DNA sequence motifs and acts a transcriptional repressor to the HIV-1 LTR (1). Later experiments revealed that TDP43 also regulates the splicing of exon 9 of the cystic fibrosis transmembrane conductance regular (CFTR), most likely through the association with the UG repeats at the 3' splice site (2). A hyperphosphorylated, ubiquitinated, and cleaved form of TDP43 known as pathologic TDP43 is the major disease protein in ubiquitin-positive, tau-, and alpha-synuclein-negative frontotemporal dementia (FLTD-U) (3). TDP43 is not related to TRBP1, and RNA binding protein that binds HIV-1 TAR RNA sequences. At least two isoforms are known to exist for this protein; this TDP43 antibody will recognize both isoforms.

SOURCE:

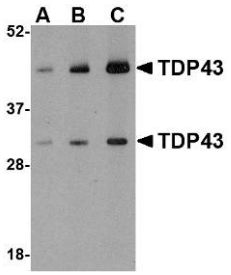
Rabbit polyclonal TDP43 antibody was raised against a 15 amino acid peptide from near the amino terminus of human TDP43 (GenBank accession no. ABO32290).

APPLICATIONS:

TDP43 antibody can be used for detection of TDP43 by Western blot at 0.5 – 1 µg/ml. (Optimal dilution should be determined by user.) HeLa cell lysate can be used as positive control. TDP43 antibody is human, mouse and rat reactive. **For research use only.**

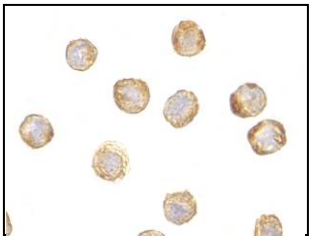
STORAGE:

TDP43 antibody is supplied as immunoaffinity purified IgG in PBS containing 0.02% sodium azide. Store at 4˚C, stable for one year.



Western blot analysis of TDP43 in HeLa cell lysate with TDP43 antibody at (A) 0.5, (B) 1 and (C) 2 µg/ml.

Immunocytochemistry of TDP43 in HeLa cells with TDP43 antibody at 5 µg/ml.



RELATED PRODUCTS:

Blocking Peptide, Catalog No. **4283P.**
HeLa Cell Lysate, Catalog No. **1201.**
TDP43 Antibody (IN), Catalog No. **4285.**
TRBP1 Antibody, Catalog No. **4011.**

REFERENCES:

1. Ou SH, Wu F, Garcia-Martinez LF, et al. Cloning and characterization of a novel cellular protein, TDP-43, that binds to human immunodeficiency virus type 1 TAR DNA sequence motifs. *J. Virol.*1995; 69:3584-96.
2. Buratti E, Dork T, Zuccato E, et al. Nuclear factor TDP-43 and SR proteins promote in vitro and in vivo CFTR exon 9 skipping. *EMBO J.* 2001; 20:1774-84.
3. Neumann M, Sampathu DM, Kwong LK, et al. Ubiquitinated TDP-43 in frontotemporal lobar degeneration and amyotrophic lateral sclerosis. *Science* 2006; 314:42-3.
(08-02D)