

# TDP43 (NT) antibody (pAb)

Rabbit Anti-Human/Mouse/Rat TDP43 (NT)

## Instruction Manual

Catalog Number	PK-AB718-4283
Synonyms	TDP43 Antibody: TAR DNA binding protein, TARDBP
Description	TDP43 was initially identified as a novel cellular protein that bound to HIV-1 virus TAR DNA sequence motifs and acts as a transcriptional repressor to the HIV-1 LTR. 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. 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 (FTLD-U). 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.
Quantity	100 µg
Source / Host	Rabbit
Immunogen	TDP43 antibody was raised in rabbits against a 15 amino acid peptide from near the amino terminus of human TDP43.
Purification Method	Affinity chromatography purified via peptide column.
Clone / IgG Subtype	Polyclonal antibody
Species Reactivity	Human, Mouse, Rat
Specificity	At least two isoforms are known to exist for this protein; this TDP43 antibody will recognize both isoforms.
Formulation	Antibody is supplied in PBS containing 0.02% sodium azide.
Reconstitution	During shipment, small volumes of antibody will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µl or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.
Storage & Stability	Antibody can be stored at 4°C for three months and at -20°C for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Applications	E, WB, ICC, IF <b>Note:</b> Antibody might be suitable for other applications not tested so far. Optimal concentrations for each application have to be determined individually.  TDP43 antibody can be used for detection of TDP43 by Western blot at 0.5 - 2 µg/mL. Antibody can also be used for immunocytochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.
Images	Available upon request.
References	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. <i>J. Virol.</i> 1995; 69:3584-96.  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. <i>EMBO J.</i> 2001; 20:1774-84.  Neumann M, Sampathu DM, Kwong LK, et al. Ubiquitinated TDP-43 in frontotemporal lobar degeneration and amyotrophic lateral sclerosis. <i>Science</i> 2006; 314:42-3.
Images	Available upon request.
Related Products	Cat.No. PK-AB718-4283P; TDP43 Peptide Cat.No. PK-AB718-1201; HeLa Cell Lysate

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