


Product datasheet

Anti-TDP43 antibody ab41881

KO VALIDATED

★★★★☆ 4 Abreviews 12 References 2 Images

Overview

Product name	Anti-TDP43 antibody
Description	Rabbit polyclonal to TDP43
Host species	Rabbit
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Human Predicted to work with: Mouse 
Immunogen	Synthetic peptide conjugated to KLH derived from within residues 350 to the C-terminus of Human TARDBP. Read Abcam's proprietary immunogen policy (Peptide available as ab41970 .)
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.40</p> <p>Preservative: 0.02% Sodium azide</p> <p>Constituent: PBS</p> <p>Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.</p>
Purity	Immunogen affinity purified
Clonality	Polyclonal

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab41881 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (1)	Use a concentration of 1 µg/ml. Detects a band of approximately 47 kDa (predicted molecular weight: 45 kDa).

Target

Function

DNA and RNA-binding protein which regulates transcription and splicing. Involved in the regulation of CFTR splicing. It promotes CFTR exon 9 skipping by binding to the UG repeated motifs in the polymorphic region near the 3'-splice site of this exon. The resulting aberrant splicing is associated with pathological features typical of cystic fibrosis. May also be involved in microRNA biogenesis, apoptosis and cell division. Can repress HIV-1 transcription by binding to the HIV-1 long terminal repeat. Stabilizes the low molecular weight neurofilament (NFL) mRNA through a direct interaction with the 3' UTR.

Tissue specificity

Ubiquitously expressed. In particular, expression is high in pancreas, placenta, lung, genital tract and spleen.

Involvement in disease

Defects in TARDBP are the cause of amyotrophic lateral sclerosis type 10 (ALS10) [MIM:612069]. ALS is a neurodegenerative disorder affecting upper and lower motor neurons and resulting in fatal paralysis. Sensory abnormalities are absent. Death usually occurs within 2 to 5 years. The etiology of ALS is likely to be multifactorial, involving both genetic and environmental factors. The disease is inherited in 5-10% of the cases.

Sequence similarities

Contains 2 RRM (RNA recognition motif) domains.

Domain

The RRM domains can bind to both DNA and RNA.

Post-translational modifications

Hyperphosphorylated in hippocampus, neocortex, and spinal cord from individuals affected with ALS and FTLDU.

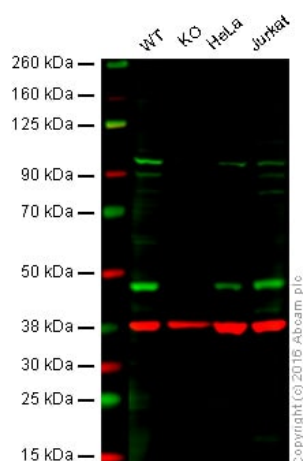
Ubiquitinated in hippocampus, neocortex, and spinal cord from individuals affected with ALS and FTLDU.

Cleaved to generate C-terminal fragments in hippocampus, neocortex, and spinal cord from individuals affected with ALS and FTLDU.

Cellular localization

Nucleus. In patients with frontotemporal lobar degeneration and amyotrophic lateral sclerosis, it is absent from the nucleus of affected neurons but it is the primary component of cytoplasmic ubiquitin-positive inclusion bodies.

Images



Western blot - Anti-TDP43 antibody (ab41881)

Lane 1: Wild-type HAP1 cell lysate (40 µg)

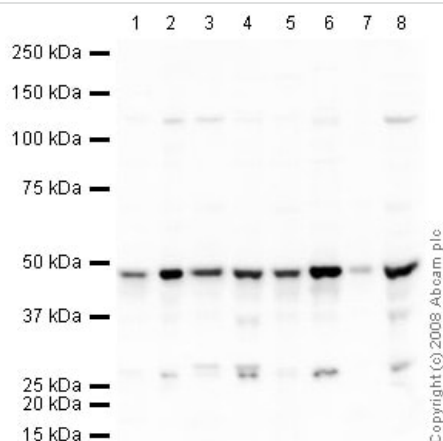
Lane 2: TDP43 knockout HAP1 cell lysate (40 µg)

Lane 3: HeLa cell lysate (40 µg)

Lane 4: Jurkat cell lysate (40 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab41881 observed at 48 kDa. Red - loading control, [ab8245](#), observed at 37 kDa.

ab41881 was shown to specifically react with TDP43 when TDP43 knockout samples were used. Wild-type and TDP43 knockout samples were subjected to SDS-PAGE. Ab41881 and [ab8245](#) (loading control to GAPDH) were diluted at 1 µg/mL and 1/10000 dilution respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed ([ab216776](#)) secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-TDP43 antibody (ab41881)

All lanes : Anti-TDP43 antibody (ab41881) at 1 µg/ml

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lane 2 : HeLa (Human epithelial carcinoma cell line) Nuclear Lysate

Lane 3 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate

Lane 4 : Jurkat nuclear extract lysate ([ab14844](#))

Lane 5 : HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate

Lane 6 : Hep G2 nuclear extract lysate ([ab14660](#))

Lane 7 : A431 (Human epithelial carcinoma cell line) Whole Cell Lysate

Lane 8 : K-562 (Human) Nuclear Lysate - tumor cell line ([ab29309](#))

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Performed under reducing conditions.

Predicted band size: 45 kDa

Observed band size: 47 kDa

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