

Product datasheet

Anti-TDP43 antibody [2E2-D3] ab57105

★ ★ ★ ★ ★ [1 Abreviews](#) [24 References](#) [8 Images](#)

Overview

Product name	Anti-TDP43 antibody [2E2-D3]
Description	Mouse monoclonal [2E2-D3] to TDP43
Host species	Mouse
Tested applications	Suitable for: Flow Cyt, WB, ICC/IF, IHC-P, Sandwich ELISA
Species reactivity	Reacts with: Human, Recombinant fragment
Immunogen	Recombinant full length protein (GST-tag) corresponding to Human TDP43 aa 1-261. The molecular weight of GST-tag is 26kDa. Sequence: MSEYIRVTEDENDEPIEIPSEDDGTVLLSTVTAQFPGACGL RYRNPVSQC MRGVRLVEGILHAPDAGWGNLVVYVNYPKDNKRKMDDET ASSAVKVKRAV QKTSIDLMLGLPWKTTEQDLKEYFSTFGEVLMVQVKKDLK TGHSKGFV RFTEYETQVKVMSQRHMIDGRWCDCKLPNSKQSQDEPL RSRKVFVGRCTE DMTEDELREFFSQYGDVMDVFIPKPFRAFAFVTFADDQIA QSLCGEDLII KGISVHISNA

Database link: [Q13148](#)

 [Run BLAST with](#)

 [Run BLAST with](#)

General notes

This product was changed from ascites to tissue culture supernatant on 5/3/19. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team.

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.

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

Properties

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.4
Purity	Tissue culture supernatant
Clonality	Monoclonal
Clone number	2E2-D3
Isotype	IgG1
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab57105 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
Flow Cyt		Use at an assay dependent concentration. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
WB	★☆☆☆☆ (1)	Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration.
Sandwich ELISA		Use at an assay dependent concentration.

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

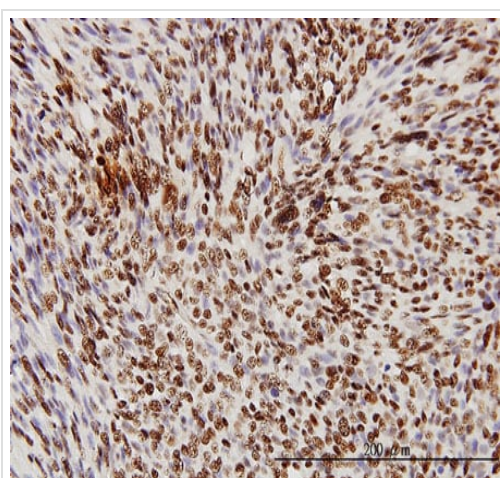
Hyperphosphorylated in hippocampus, neocortex, and spinal cord from individuals affected with ALS and FTLDU.

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.

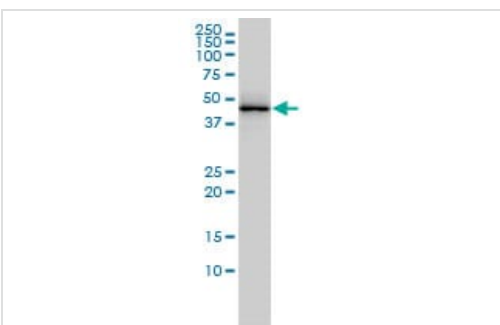
Images

ab57105 staining TDP43 in human leiomyosarcoma tissue.

Antibody concentration 3μg/ml.

This image was generated using the ascites version of the product.

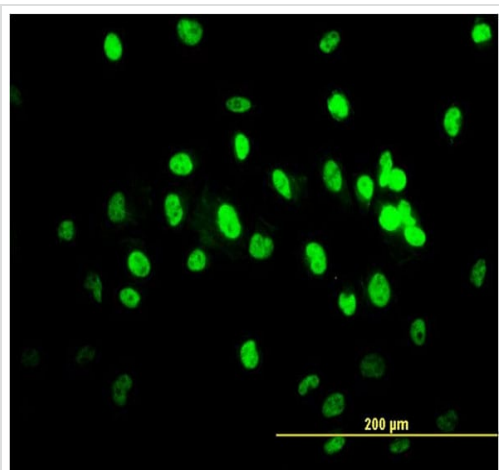
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TDP43 antibody [2E2-D3] (ab57105)



TDP43 antibody (ab57105) at 1ug/lane + A-431 cell lysate at 25ug/lane.

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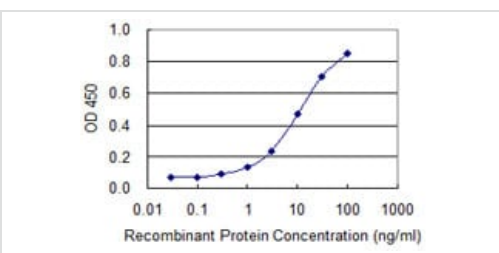
Western blot - Anti-TDP43 antibody [2E2-D3] (ab57105)



Immunocytochemistry/ Immunofluorescence - Anti-TDP43 antibody [2E2-D3] (ab57105)

ab57105 staining TDP43 in HeLa cells. Antibody concentration 10μg/ml.

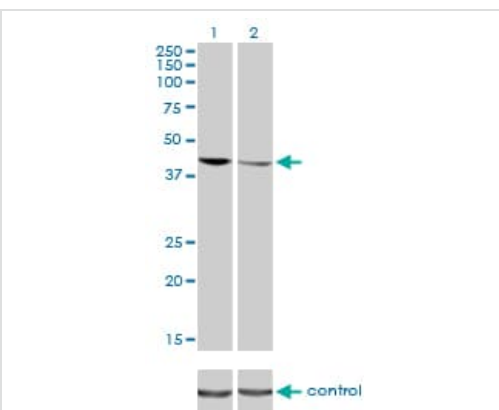
This image was generated using the ascites version of the product.



Sandwich ELISA - Anti-TDP43 antibody [2E2-D3] (ab57105)

Detection limit for recombinant GST tagged TDP43 is 0.3 ng/ml as a capture antibody.

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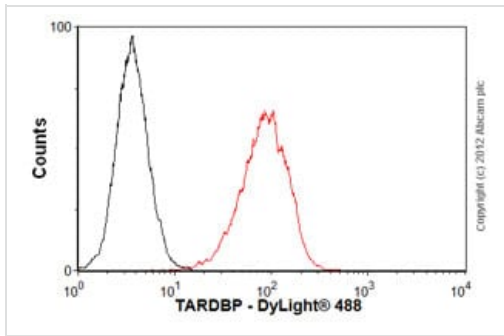


Western blot - Anti-TDP43 antibody [2E2-D3] (ab57105)

ab57105 staining TDP43 overexpressed in the HEK293 cell line (cotransfected with TDP43 validated Chimera siRNA) (lane 1) or non-transfected control (lane 2).

GAPDH used as a specificity and loading control.

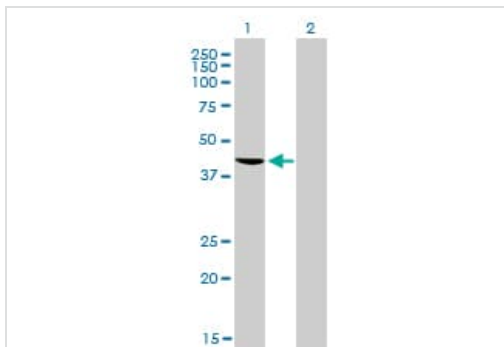
This image was generated using the ascites version of the product.



Flow Cytometry - Anti-TDP43 antibody [2E2-D3] (ab57105)

Overlay histogram showing HeLa cells stained with ab57105 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab57105, 1 μ g/1x10⁶ cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) ([ab96879](#)) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] ([ab91353](#), 2 μ g/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HeLa cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.

This image was generated using the ascites version of the product.



Western blot - Anti-TDP43 antibody [2E2-D3] (ab57105)

All lanes : Anti-TDP43 antibody [2E2-D3] (ab57105) at 5 μ g/ml

Lane 1 : HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) transfected with TDP43, cell lysate

Lane 2 : Untransfected HEK-293T cell lysate

Developed using the ECL technique.

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Immunocytochemistry/ Immunofluorescence - Anti-TDP43 antibody [2E2-D3] (ab57105)

TARDBP antibody (ab57105) used in immunofluorescence at 10 μ g/ml on HeLa cells.

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