abcam

Product datasheet

Anti-TDP43 antibody [3H8] ab104223

敲除验证

13 References 4 图像

概述

产品名称	Anti-TDP43抗体[3H8]
描述	小鼠单克隆抗体[3H8] to TDP43
宿主	Mouse
经测试应用	**适用于:** WB, ICC/IF, Flow Cyt
种属反应性	**与反应:** Mouse, Rat, Human **预测可用于:** a wide range of other species
免疫原	Recombinant full length protein corresponding to Human TDP43.
阳性对照	Mouse brain tissue lysate, rat brain tissue. ICC/IF: HAP1-TARDBP cells
常规说明	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

性能

形式	Liquid
存放说明	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
存储溶液	Preservative: 0.03% Sodium azide Constituents: 49.9% PBS, 50% Glycerol (glycerin, glycerine)
纯度	Affinity purified
克隆	单克隆
克隆编号	3H8
同种型	IgG1

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab104223于以下的经测试应用**

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB		1/5000. Predicted molecular weight: 45 kDa.
ICC/IF		1/500.
Flow Cyt		1/100. **ab170190** - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

靶标

功能 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.

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

疾病相关 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.

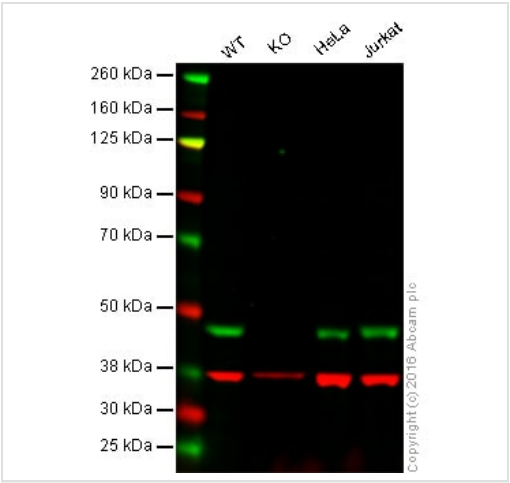
序列相似性 Contains 2 RRM (RNA recognition motif) domains.

结构域 The RRM domains can bind to both DNA and RNA.

翻译后修饰 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.

细胞定位 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.

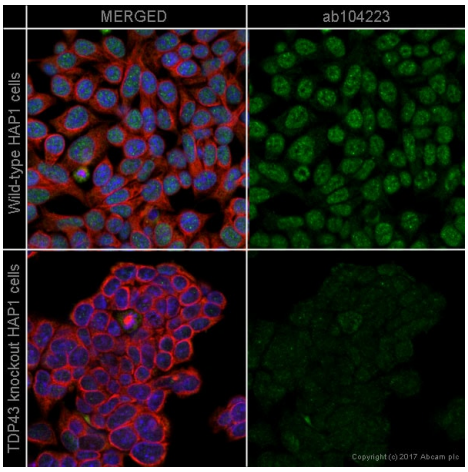
图片



Western blot - Anti-TDP43 antibody [3H8] (ab104223)

Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: TDP43 knockout HAP1 cell lysate (20 µg)
Lane 3: HeLa cell lysate (20 µg)
Lane 4: Jurkat cell lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green). Green - ab104223 observed at 48 kDa. Red - loading control, **ab181602**, observed at 37 kDa.

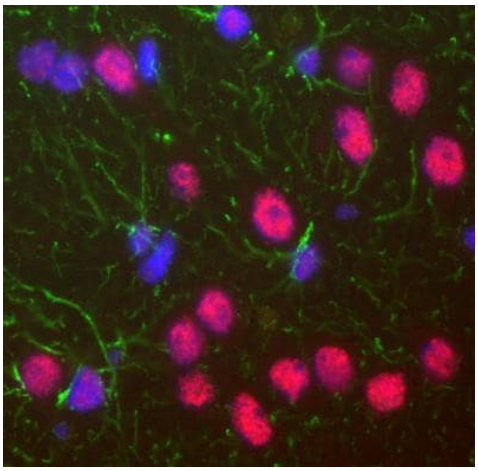
ab104223 was shown to specifically react with TDP43 when TDP43 knockout samples were used. Wild-type and TDP43 knockout samples were subjected to SDS-PAGE. Ab104223 and **ab181602** (loading control to GAPDH) were diluted at 1/5000 and 1/10,000 dilution respectively and incubated overnight at 4C. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preadsorbed (**ab216772**) and Goat Anti-Rabbit IgG H&L (IRDye® 680RD) preadsorbed (**ab216777**) secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-TDP43 antibody [3H8] (ab104223)

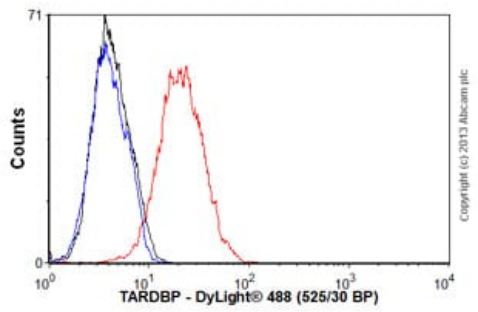
ab104223 staining TDP43 in wild-type HAP1 cells (top panel) and TARDBP knockout HAP1 cells (bottom panel). The cells were fixed with 100% methanol (5min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab104223 at 1/500 dilution and **ab202272** at 1/250 dilution (shown in pseudocolour red) overnight at +4°C, followed by a further incubation at room temperature for 1h with a goat secondary antibody to Mouse IgG (Alexa Fluor® 488) (**ab150117**) at 2 µg/ml (shown in green). Nuclear DNA was labelled in blue with DAPI.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunocytochemistry/ Immunofluorescence - Anti-TDP43 antibody [3H8] (ab104223)

ab104223 at 1/1000 dilution, staining TARDBP in rat brain tissue (red). Chicken antibody to GFAP CPCA-GFAP (green) shows the processes of astrocytic glial cells. Nuclei of all cells are revealed with DAPI DNA stain (blue).



Flow Cytometry - Anti-TDP43 antibody [3H8] (ab104223)

Overlay histogram showing JEG3 cells stained with ab104223 (red line). The cells were fixed with 4% paraformaldehyde (10 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 (ab104223, 1/100 dilution) 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**, 1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. This antibody gave a positive signal in JEG3 cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.

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