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PRODUCT DATASHEET

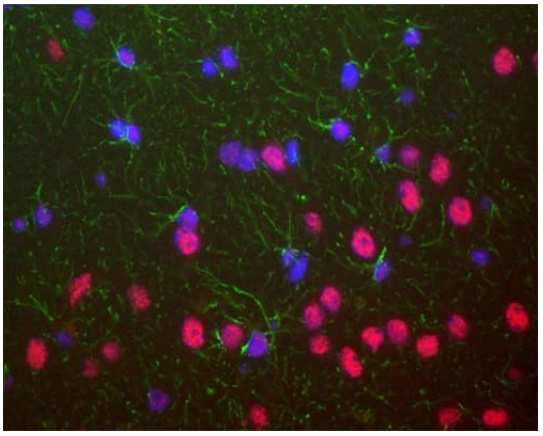
Anti-TAR DNA-binding protein 43 (TDP-43) Antibody

Product Details

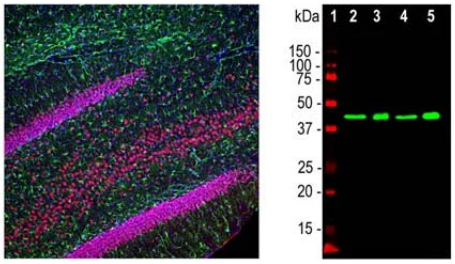
Available Variants	100 µg (SKU:M-1403-100)
Conjugate	Unconjugated
Isotype	IgG
Clone	3H8
Host Species	Mouse
Format	IgG
Physical State	Lyophilized
Buffer	Lyophilized from PBS buffer pH 7.2-7.6 with 0.1% trehalose, and sodium azide
Production Notes	Protein G purified
Applications	ICC, IHC, WB
Dilution Ranges	WB: 1:1000-1:5000 IHC: 1:1000-1:5000 ICC: 1:500-1:1000
Species Reactivity	Human, Mouse, Rat
Immunogen	This antibody was raised against recombinant full length human his-tagged TDP43 which was expressed in E. coli and purified by nickel affinity.
Specificity	The specificity of this antibody has been confirmed by WB. This antibody detects ~43 kDa TDP43 protein on crude extract of mouse brain nuclear fraction. Human and Rodent. Predicted to react with other mammalian tissue.
Molecular Weight	43 kDa
Storage	Spin vial briefly before opening. Reconstitute with 100 µL sterile-filtered, ultrapure water to achieve a 1 mg/mL concentration. Centrifuge to remove any insoluble material. After reconstitution of lyophilized antibody, aliquot and store at -20°C for a higher stability. Avoid freeze-thaw cycles.

UniProt ID	Q13148
Country of Origin	United States
Shipping	25°C (ambient)
Expiration	12 months after date of receipt (unopened vial).
Usage Statement	For research use only.

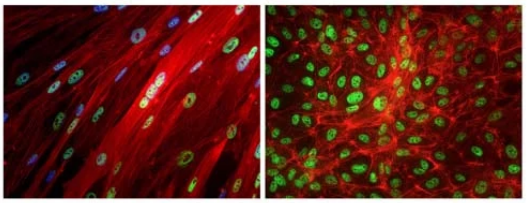
Product Images



Mouse monoclonal antibody to TAR DNA-binding protein 43 [3H8] M-1403-100 was used to stain a section of formalin fixed adult rat brain, specifically the hippocampus. Hippocampal neuron nuclei are stained strongly. Chicken polyclonal antibody to GFAP C-1373-50 (green) shows the processes of astrocytic glial cells. Nuclei of all cells are revealed with DAPI DNA stain (blue). The TAR DNA-binding protein 43 antibody stains neuronal nuclei strongly and the nuclei of some non-neuronal cells much more weakly. Neuronal nuclei therefore look crimson, since they are both red due to the content of TAR DNA-binding protein 43 and blue due to their content of DNA, stained blue with DAPI.



Left: Analysis of TDP43 expression in rat hippocampus section by **Immunohistochemistry**. Section was stained with mouse anti-TDP43 antibody (red, 1:2,000), and co-stained with chicken antibody to GFAP (C-1373-50, green, 1:5,000). Blue: DAPI nuclear stain. IHC method: Following transcardial perfusion of rat with 4% paraformaldehyde, brain was post-fixed for 24 hours, cut to 45 um sections, and free-floating sections were stained. The TDP43 protein is concentrated in the nuclei of hippocampal neurons, while the GFAP antibody stains the intermediate filament network of astroglial cells. **Right: Western blot** analysis of whole brain lysates and nuclear extracts for TDP43 expression (green, 1:2,000). [1] protein standard, [2] rat brain, [3] rat brain nuclear extract, [4] mouse brain, [5] mouse brain nuclear extract. A strong band at 43 kDa corresponds to TDP43 protein.



TDP43 staining in fixed and permeabilized human umbilical vein endothelial cells (HUVEC) by **Immunocytochemistry**. TDP43-IR (green) is localized to cell nuclei as expected. Blue: Hoechst nuclear stain (left only). Red: Phalloidin staining. Primary TDP43 antibody concentration: 2 µg/mL; Magnification: 32X. Image courtesy of QBM Cell Science.
