

Product Datasheet

Myelin PLP Antibody NB100-74503

Unit Size: 100 uL

Store at -20C. Avoid freeze-thaw cycles.

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NB100-74503

Myelin PLP Antibody

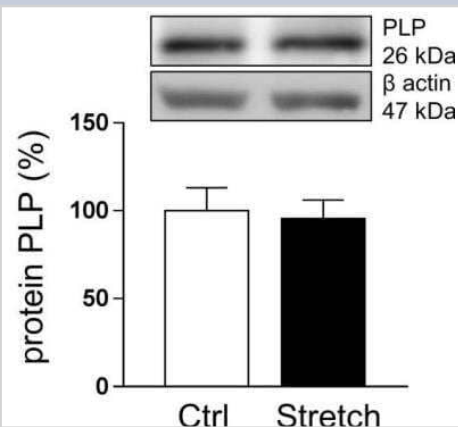
Product Information	
Unit Size	100 uL
Concentration	This product is unpurified. The exact concentration of antibody is not quantifiable.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide
Isotype	IgG
Purity	Unpurified
Buffer	Whole antisera

Product Description	
Description	Novus Biologicals Rabbit Myelin PLP Antibody (NB100-74503) is a polyclonal antibody validated for use in WB and ICC/IF. Anti-Myelin PLP Antibody: Cited in 6 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	5354
Gene Symbol	PLP1
Species	Mouse, Rat
Reactivity Notes	Rat reactivity reported in scientific literature (PMID: 20594620).
Marker	Oligodendrocyte Marker
Specificity/Sensitivity	PLP
Immunogen	Synthetic peptide corresponding to residues C(109) G K G L S A T V T G G Q K G R G S R G(128) of PLP.

Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence
Recommended Dilutions	Western Blot 1:1000, Immunocytochemistry/ Immunofluorescence
Application Notes	Useful in IHC and WB. WB: Detects an approx. 26 - 29 kDa protein representing the proteolipid protein in adult mouse brain samples. Use in Immunocytochemistry/immunofluorescence reported in scientific literature (PMID: 20594620).

Images

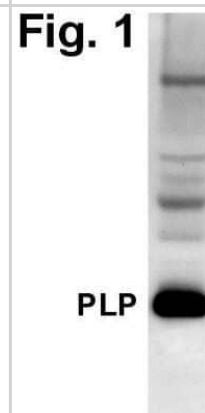
Western Blot: Myelin PLP Antibody [NB100-74503] - Proteins were extracted from control (Ctrl) and stretched (Stretch) 158N cells and western blot was performed for myelin protein PLP (26 kDa) following 20% of strain. Beta-Actin was used as a loading control. Results represent the mean +/- SEM of three independent experiments. Image collected and cropped by CiteAb from the following publication (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6505516/>) licensed under a CC-BY license.



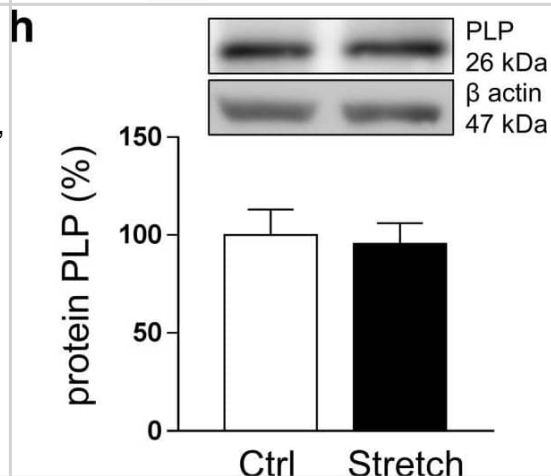
Western Blot: Myelin PLP Antibody [NB100-74503] - Figure 1 shows a Western blot of PLP in adult mouse brain samples using NB100-74503. Figure 2 shows an immunocytochemical staining of PLP in mouse brain thick section using NB100-74503. Staining (m) is limited to myelin tracts and oligodendrocytes.



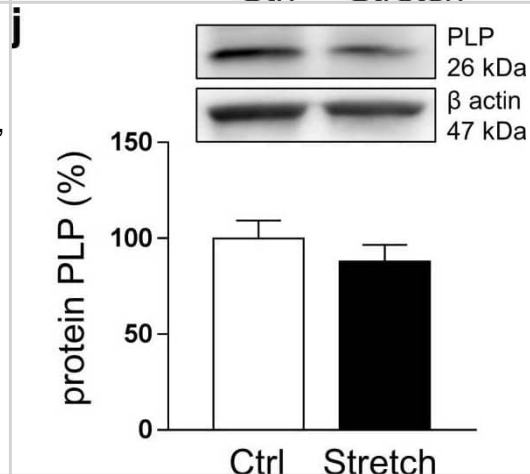
Western Blot: Myelin PLP Antibody [NB100-74503] - Analysis of adult mouse brain samples.



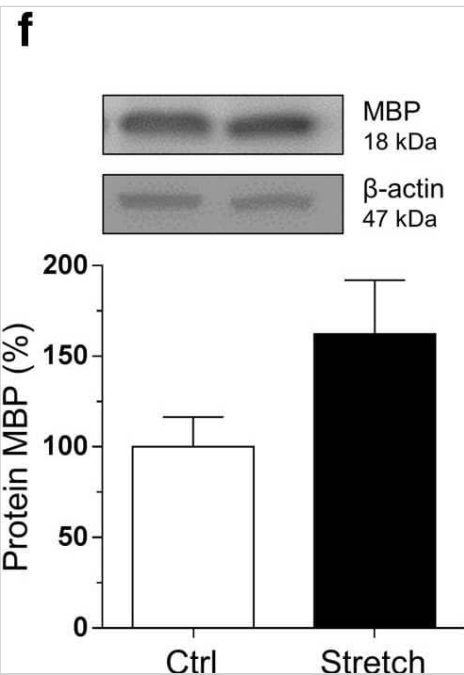
Western Blot: Myelin PLP Antibody [NB100-74503] - Alteration in myelin gene expression after in vitro mechanical tensile strain of 20% & 30%. Total RNA was extracted & RT-qPCR was performed in control (Ctrl) & stretched (Stretch) cells for myelin genes Mag (a, d), Cnp (b, e), & Plp (c, f, g, i) after strain of 20% (a, b, c, g) & 30% (d, e, f, i). Results represent the mean \pm SEM of three independent experiments performed in triplicate. * $p < 0.05$; ** $p < 0.01$. (h, j) Proteins were extracted from control (Ctrl) & stretched (Stretch) 158N cells & western blot was performed for myelin protein PLP (26 kDa) following 20% (h) & 30% (j) of strain. β -Actin was used as a loading control. Results represent the mean \pm SEM of three independent experiments Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30298339>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



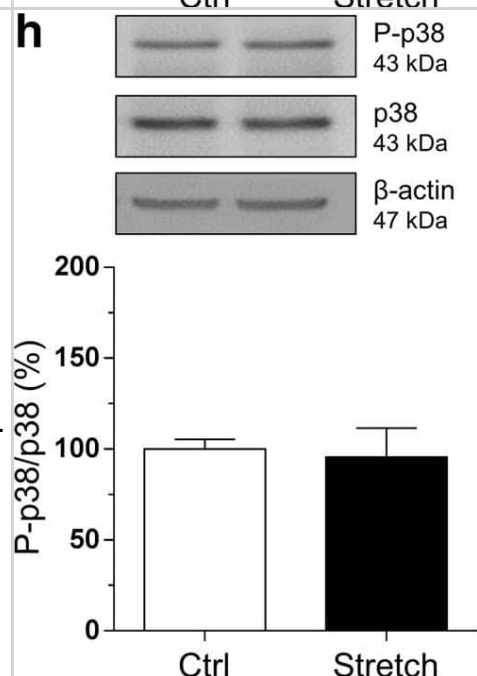
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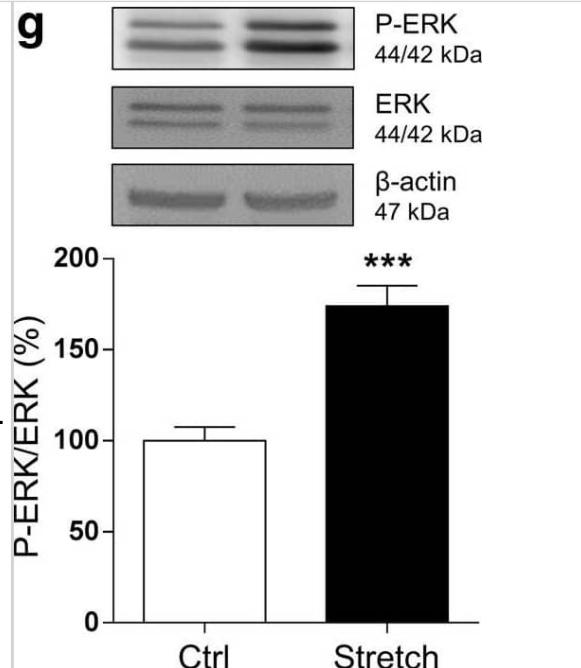
Western Blot: Myelin PLP Antibody [NB100-74503] - Mechanical tensile strain of 30% induces an elongation of paranodal junction & alteration in MAPK signaling in organotypic cerebellar slice culture. a Double immunostaining of organotypic cerebellar slices for CASPR in red & MAG in green. The response was evaluated at time 0 h post-stretch. Altered paranodal junctions are highlighted within white circles in high-magnification images. Scale bar, 50 μ m; inset scale bar, 5 μ m. b Sketch of CASPR & MAG labeling in the paranodal junction. Quantitative analysis is characterized by three length measurements: c nodal length called (A); d paranodal length called (B); & e (B-A) corresponding to the total length of the CASPR labeling. f–h Proteins were extracted following strain of 30% from control (Ctrl) & stretched (Stretch) slices & western blot was performed for the myelin protein MBP (f), ERK1/2 (g), & p38 (h). The ratio P-ERK on total ERK & the ratio P-p38 on total p38 are presented. β -Actin was used as a loading control. Results represent the mean \pm SEM (n = 3). ***p < 0.001. CASPR contactin-associated protein, MAG myelin-associated glycoprotein Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30298339>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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Publications

McCray, TJ;Bedford, LM;Bissel, SJ;Lamb, BT; Trem2-deficiency aggravates and accelerates age-related myelin degeneration *Acta neuropathologica communications* 2024-09-19 [PMID: 39300502]

Pijuan I, Balducci E, Soto-Sanchez C et al. DYRK1A haploinsufficiency affects the development of astroglia and oligodendroglia, and axonal conductivity in the brain *Research Square* 2022-08-08 (WB, Mouse)

Details:

Dilution used for WB 1:1000

Sghaier R, Zarrouk A et al. Biotin attenuation of oxidative stress, mitochondrial dysfunction, lipid metabolism alteration and 7 beta-hydroxycholesterol-induced cell death in 158N murine oligodendrocytes. *Free Radic Res* 2019-01-05 [PMID: 31039616] (WB, Mouse)

Sghaier R, Nury T, Leoni V et al. Dimethyl fumarate and monomethyl fumarate attenuate oxidative stress and mitochondrial alterations leading to oxiaoptophagy in 158N murine oligodendrocytes treated with 7 beta-hydroxycholesterol *J. Steroid Biochem. Mol. Biol.* 2019-07-22 [PMID: 31344443] (WB, Mouse)

Chierto E, Simon A, Castoldi F et al. Mechanical Stretch of High Magnitude Provokes Axonal Injury, Elongation of Paranodal Junctions, and Signaling Alterations in Oligodendrocytes. *Mol. Neurobiol.* 2018-10-08 [PMID: 30298339] (WB, Mouse)

Horiuchi M, Maezawa I, Itoh A et al. Amyloid Beta 1-42 oligomer inhibits myelin sheet formation in vitro. *Neurobiology of Aging* 2012-03-12 [PMID: 20594620] (WB, ICC/IF, Rat)

Kiebish MA, Young DM, Lehman JJ, Han X. Chronic caloric restriction attenuates a loss of sulfatide content in PGC-1alpha^{-/-} mouse cortex: a potential lipidomic role of PGC-1alpha in neurodegeneration. *J Lipid Res* 2012-02-01 [PMID: 22114039]



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NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

Limitations

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