Product Datasheet

MBP Antibody (12) - BSA Free
NB600-717

Unit Size: 1 ml

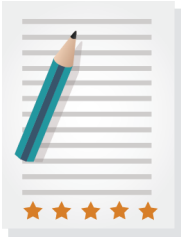
Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

www.novusbio.com technical@novusbio.com

Reviews: 3 Publications: 48

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NB600-717

Updated 9/9/2025 v.20.1



NB600-717

MBP Antibody (12) - BSA Free

Product Information

Unit Size	1 ml
Concentration	This product is unpurified. The exact concentration of antibody is not quantifiable.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	12
Preservative	0.1% Sodium Azide
Isotype	IgG2a
Purity	Tissue culture supernatant
Buffer	0.1 M Tris

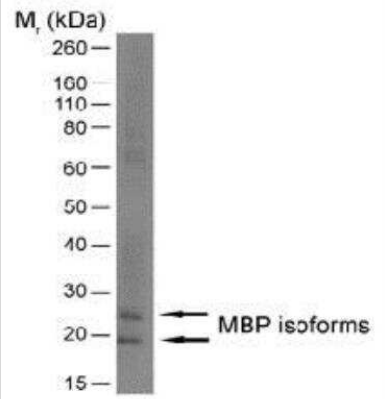
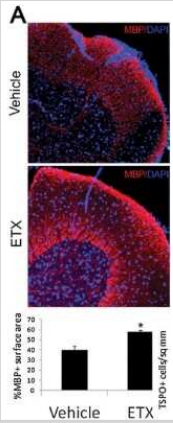
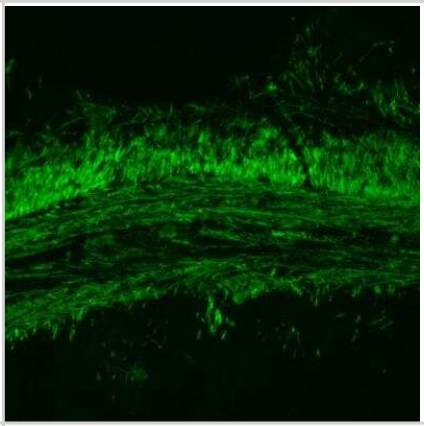
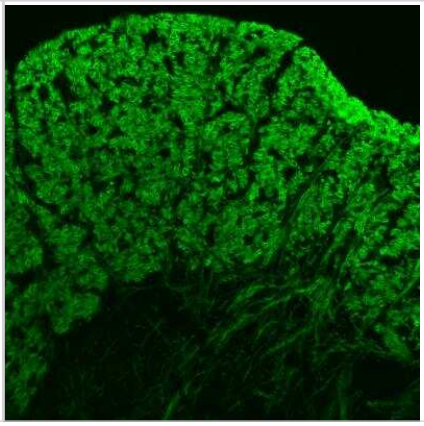
Product Description

Description	Novus Biologicals Rat MBP Antibody (12) - BSA Free (NB600-717) is a monoclonal antibody validated for use in IHC, WB, ELISA and ICC/IF. Anti-MBP Antibody: Cited in 45 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rat
Gene ID	4155
Gene Symbol	MBP
Species	Bovine
Reactivity Notes	Predicted cross-reactivities: Mouse, Rabbit, Porcine, Mammals, Human, Guinea Pig, Chicken, Rat, Sheep
Marker	Oligodendrocyte Marker, Myelin Marker
Specificity/Sensitivity	NB600-717 reacts with myelin basic protein from a wide range of species. The antibody reacts weakly with peptides ending in the Phe 91 where the 91-92 Phe-Phe bond is broken. Synthetic peptide 82-99 reacts very well, as does intact MBP. Further epitope analysis indicates binding to a region defined by amino acids 82-87 (DENPVV). Clone 12 has been reported as being suitable for use in Western blotting.
Immunogen	Bovine MBP

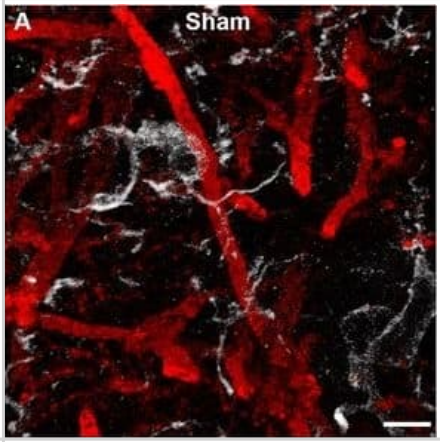
Product Application Details

Applications	Western Blot, Immunohistochemistry-Paraffin, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Radioimmunodiffusion, Radioimmunoassay
Recommended Dilutions	Western Blot 1:100-1:2000, ELISA 1:100-1:2000, Immunohistochemistry 1:10-1:500, Immunocytochemistry/ Immunofluorescence 1:10-1:500, Immunohistochemistry-Paraffin 1:10-1:500, Immunohistochemistry-Frozen 1:10-1:500, Radioimmunodiffusion, Radioimmunoassay

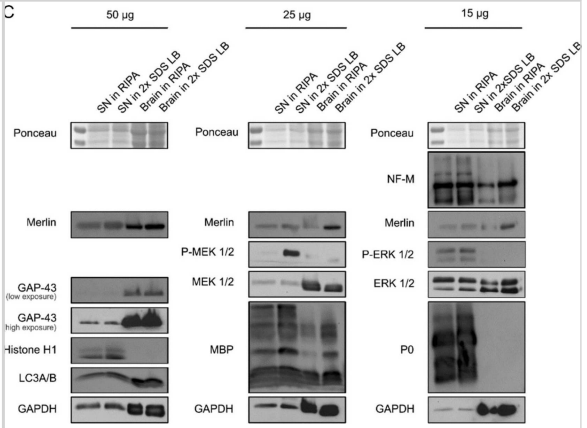
Images

Western Blot: MBP Antibody (12) [NB600-717] - Mouse Brain Tissue lysate probed with Rat anti MBP.	
Immunocytochemistry/Immunofluorescence: MBP Antibody (12) [NB600-717] - Histological and mRNA analysis of the inflammatory cytokines in the vehicle- or etifoxine-treated mice at onset of clinical symptoms. At day 10 p.i., drug treated animals showed significant differences in MBP staining. Animals treated with etifoxine showed an increase in retention of percentage of MBP coverage (*p = 0.001). Image collected and cropped by CiteAb from the following publication (https://embomolmed.embopress.org/cgi/doi/10.1002/emmm.201202124), licensed under a CC-BY license.	
Immunohistochemistry-Frozen: MBP Antibody (12) [NB600-717] - Staining of MBP in mouse brain corpus callosum. Image from verified customer review.	
Immunohistochemistry-Frozen: MBP Antibody (12) [NB600-717] - Staining of MBP in mouse spinal cord ventral white matter. Image from verified customer review.	

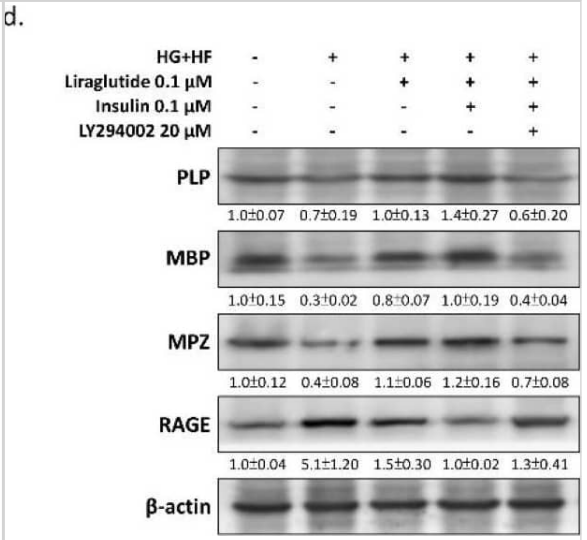
Immunocytochemistry/ Immunofluorescence: MBP Antibody (12) [NB600-717] - Microglia processes appear to preferentially contact TBI-induced proximal axonal swellings. Representative 3D reconstructions of MBP+ myelinated axons (red) or APP+ axonal swellings (green) & Iba-1+ microglia (white) in sham-injured (a) or central fluid percussion injured (b) thalami. c Bar graph depicting the average number of Iba-1+ microglial processes contacting either MBP+ myelinated fibers in the sham animals or APP+ axonal swellings in injured animals. Graph depicts the mean ± standard error of the mean. *p < 0.05. Scale bar: 5 µm Image collected & cropped by CiteAb from the following publication (https://jneuroinflammation.biomedcentral.com/articles/10.1186/s12974-015-0405-6), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western blots based on protein quantification with the PDB assay. (A,B) Ponceau S-stained dot blot. Undiluted BSA standards and BSA standards diluted 1:1 in 2x SDS lysis buffer were spotted in duplicate onto a membrane (fixed concentration, variable volumes). A quantity of 1 uL of sciatic nerve (SN) and brain samples lysed in 2x SDS LB or RIPA buffer was also applied onto the same membrane for quantification with the PDB assay. (C) The nerve and brain lysates containing 50, 25 or 15 ug of total proteins (based on the PDB assay) were loaded for SDS-PAGE and Western blot. After protein transfer to a nitrocellulose membrane, the membrane was also stained with Ponceau S. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/35049578), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Liraglutide enhances the normal physiological function of SCs via insulin-Akt signaling. (a) Western blot analysis of Ser473-phosphorylated Akt confirmed that Liraglutide and insulin reverse the glucolipotoxicity-induced insulin signaling blockade. (b) MTT assays showed that the protective effect of Liraglutide and insulin were inhibited by co-treatment with 20 µM LY294002. (c) mRNA levels of neurotrophic factors, including CNTF, NGF, NT-3, and BDNF, were measured by qPCR. Liraglutide and insulin significantly elevated the mRNA levels of neurotrophic factors suppressed by glucolipotoxicity. However, LY294002 counteracted the effects of Liraglutide and insulin. (d) Western blots demonstrated that Liraglutide and insulin show efficacy in improving SC synthesis of essential myelin components and decrease the expression of the demyelination marker RAGE. Similarly, LY294002 blocked the effects of Liraglutide and insulin in promoting myelination in RSC96 SCs. All values are presented as the mean +/- SEM. Significant difference was determined using multiple comparisons of Dunnett's posthoc test for * p < 0.05 and ** p < 0.01. N.S., not significant. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/36291547), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Komaki R, Shiotani H, Kuriu T et al. Necl-4/CADM4 regulates GABAergic synaptic strength on GABAergic inhibitory neurons via ErbB4 activation and prevents neuronal impairments. Molecular neurobiology 2025-07-29 [PMID: 40728771]

Wang Y, Kim B, Shi X et al. PAK1 regulates oligodendroglial proliferation and repopulation in homeostatic and demyelinating brain Cellular and molecular life sciences : CMLS 2025-06-28 [PMID: 40586933]

Mike JK, Wu KY, White Y et al. Defining Longer-Term Outcomes in an Ovine Model of Moderate Perinatal Hypoxia-Ischemia Developmental Neuroscience 2022-05-19 [PMID: 35588703] (Immunohistochemistry, Mouse)

Kornelius E, Tsou SH, Chang CC et al. Liraglutide Attenuates Glucolipotoxicity-Induced RSC96 Schwann Cells' Inflammation and Dysfunction Biomolecules 2022-09-21 [PMID: 36291547] (Immunohistochemistry, Mouse)

Le CT, Khuat LT, Caryotakis SE et al. PD-1 Blockade Reverses Obesity-Mediated T Cell Priming Impairment Frontiers in Immunology 2020-10-29 [PMID: 33193426] (Immunohistochemistry, Mouse)

Av?ar T, □elikyapi Erdem G, Terzio?lu G, Tahir Turanli E. Investigation of neuro-inflammatory parameters in a cuprizone induced mouse model of multiple sclerosis TURKISH JOURNAL OF BIOLOGY 2021-10-18 [PMID: 34803461] (Immunohistochemistry, Mouse)

M Horiuchi, Y Suzuki-Hor, T Akiyama, A Itoh, D Pleasure, E Carstens, T Itoh Differing intrinsic biological properties between forebrain and spinal oligodendroglial lineage cells J. Neurochem., 2017-06-09;0(0):. 2017-06-09 [PMID: 28512742]

Tetzlaff SK, Reyhan E, Layer N, Bengtson CP et Al. Characterizing and targeting glioblastoma neuron-tumor networks with retrograde tracing Cell 2024-12-07 [PMID: 39644898]

Kameyama T, Miyata M, Shiotani H et Al. Heterogeneity of perivascular astrocyte endfeet depending on vascular regions in the mouse brain iScience 2023-09-21 [PMID: 37829206]

Schubert MC, Soyka SJ, Tamimi A et Al. Deep intravital brain tumor imaging enabled by tailored three-photon microscopy and analysis Nat Commun 2024-09-10 [PMID: 39256378]

R Büttner, A Schulz, M Reuter, AK Akula, T Mindos, A Carlstedt, LB Riecken, SL Baader, R Bauer, H Morrison Inflammaging impairs peripheral nerve maintenance and regeneration Aging Cell, 2018-08-31;0(0):e12833. 2018-08-31 [PMID: 30168637]

Bradbury AM, Bagel J, Swain G et al. Combination HSCT and intravenous AAV-mediated gene therapy in a canine model proves pivotal for translation of Krabbe disease therapy Molecular therapy : the journal of the American Society of Gene Therapy 2023-11-11 [PMID: 37952085]

More publications at http://www.novusbio.com/NB600-717

Novus Biologicals USA
10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada
21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd
19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information
www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

Products Related to NB600-717

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF005	Goat anti-Rat IgG Secondary Antibody [HRP]
NB7115	Goat anti-Rat IgG (H+L) Secondary Antibody [HRP]
NBP2-21947-0.1mg	Rat IgG2a Isotype Control (2A3)

Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NB600-717

Earn gift cards/discounts by submitting a publication using this product: www.novusbio.com/publications