

Datasheet

Anti-MBP Clone 2

Product Name	Anti Human MBP 2
Catalogue Number	MBP2
Clone, Isotype	MBP 2, IgG1
Format	IgG
Tested Applications	WB, IHC, IP, IF, ELISA

Description:

Myelin Basic Protein (MBP) is involved in the process of myelination of nerves in the nervous system. MBP Clone 2 recognizes an epitope in the 119-131 region of MBP, useful in clinical diagnosis to detect MBP levels in human, rat and cow MBP.

Product Details:

Form in stock: IgG, purified – 1.0 mg/mL. Also available as unpurified supernatant.

Host: Mouse

Specificity: Recognizes bovine BMP, in the region of residues 119-131 (GAEGQRPGFGYGG).

Fusion partner: Spleen cells from immunised NIH/Ola mice were fused with cells of the NS0 mouse myeloma cell line.

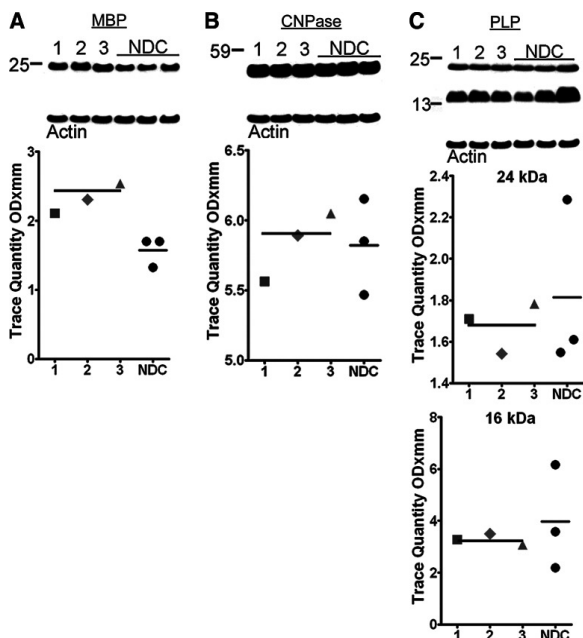
Storage: Store at +4°C or -20°C. Avoid repeated freezing and thawing.

Shelf life: 18 months from date of dispatch.

Regulatory/ Restrictions: For research and commercial purposes.

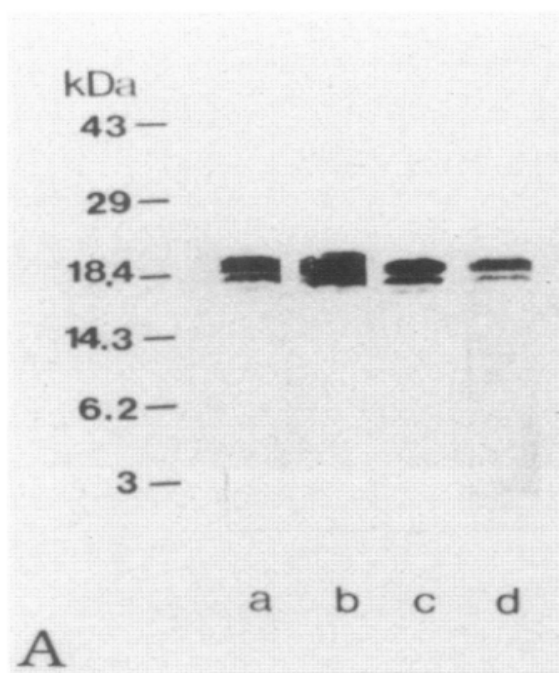
Applications	Suggested Dilution
Western Blot	1:10 – 1:200
Immunohistochemistry	1:75-1:500 ^{2,7,8,9,10,11}
Immunoprecipitation	10-20 µL/ 100-500 µg
Immunofluorescence	1:10 – 1:200
ELISA	1:1000 ³

Applications:



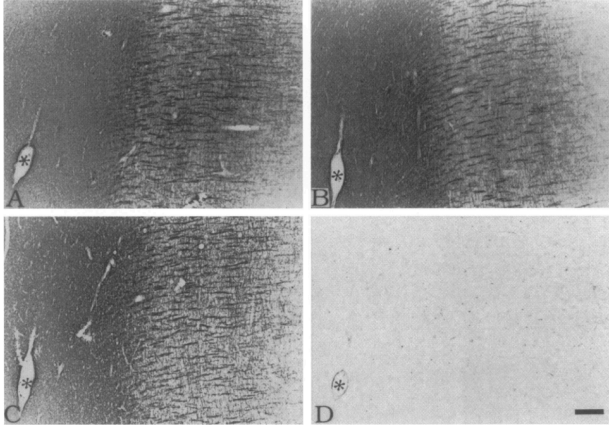
Western Blot of MBP Clone 2 used to detect MBP in a neurochemical profile study of dementia patients

Image caption: Western blots from white matter homogenates of myelin-associated proteins. The mean myelin basic protein (MBP) (A) levels were discretely elevated in the dementia pugilistica (DP) cases when compared with the non-demented controls (NDC). (Kokjohn, TA et al.)



Western Blot of MBP Clone 2 used in a comparative study between anti-MBP clones and anti-EP

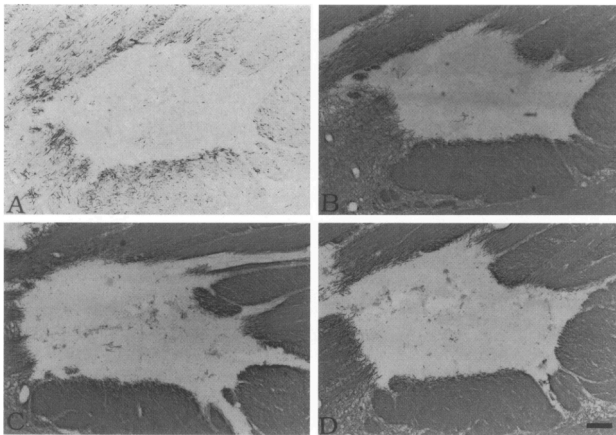
Image caption: Figure 2. The specificity of EP antiserum examined by Western blot(A) and immunoabsorption tests(B to 1).A: Lane a, anti-whole hMBP antibody; lane b, clone 14, lane c, clone 2; lane d, EP antiserum. All antibodies detected a major 18.5-kd band and a weaker 17.2-kd band in extracts of normal human brain homogenates. (Matsuo, A et al.)



Clone MBP 2 used to detect myelinated structures in MS plaques by IHC-F

Image caption: ...clone 2 (C) recognized all myelinated structures in control brains, whereas no immunoreactivity was detected by EP antiserum (D). The identical vessel in the four photomicrographs is indicated by the asterisks. (Matsuo, A et al.)

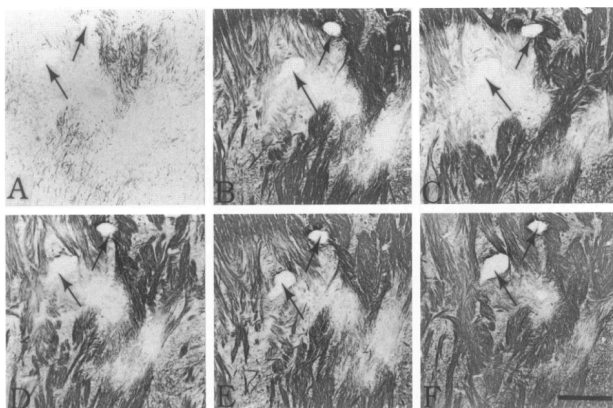
Dilution used: 1:250



Clone MBP 2 used to detect myelinated structures in MS plaques by IHC-F

Image caption: ...D: Clone2 also recognized all myelinated structures...(Matsuo, A et al.)

Dilution used: 1:250



Clone MBP 2 used to detect myelinated structures in MS plaques by IHC-P

Figure 5. Serial sections of paraffin-embedded MS tissue immunostained with anti-EP(A), clone26(B), clone2(C), clone14(D), clone12(E), or clone22(F). Notice that only abnormal myelin tissues strongly stained by anti-EP, whereas all other antibodies strongly stain the normal myelin surrounding the plaque area. See Materials and Methods for details. (Matsuo, A et al.)

Dilution used: 1:250

References:

1. Kokjohn, T.A., Maarouf, C.L., Daus, I.D. (2013) Neurochemical Profile of Dementia Pugilistica. *Journal of Neurotrauma*; 30(11):981-997.
2. Matsuo, A., Lee, G.C., Terai, K., Takami, K., Hickey, W.F., McGeer, E.G., McGeer, P.L. (1997). Unmasking of an unusual myelin basic protein epitope during the process of myelin degeneration in humans: a potential mechanism for the generation of autoantigens. *The American Journal of Pathology*, 150(4), 1253–1266.
3. Groome, N.P., Harland, J., Dawkes, A. (1985) Preparation and properties of monoclonal antibodies to myelin basic protein and its peptides. *Neurochemistry International*, Volume 7, Issue 2, Pages 309-317, ISSN 0197-0186. **ELISA, Dilution used 1:1000**
4. Groome, N.P., Dawkes, A., Gales, M., Hruby, S., Alvord, E.C. Jr. (1986) Region-specific immunoassays for human myelin basic protein. *Journal of Neuroimmunology*;12(4):253-64. **ELISA**
5. Wong, H., Agnes, W., Xiao, J., Kemper, D., Kilpatrick, T.J., Murray, S.S. (2013) Oligodendroglial Expression of TrkB Independently Regulates Myelination and Progenitor Cell Proliferation. *Journal of Neuroscience Society for Neuroscience*. **WB**
6. Roher, A.E., Maarouf, C.L., Malek-Ahmadi, M., Wilson, J., Kokjohn, T.A., Daus, I.D., Beach, T.G. (2013). Subjects harboring presenilin familial Alzheimer's disease mutations exhibit diverse white matter biochemistry alterations. *American Journal of Neurodegenerative Disease*, 2(3), 187–207. **WB**
7. Tatalovic, M., Glazebrook, P.A., Kunze, D.L. (2012) Expression of the P/Q (Cav2.1) calcium channel in nodose sensory neurons and arterial baroreceptors. *Neuroscience Letters*, Volume 520, Issue 1, Pages 38-42, ISSN 0304-3940. **IHC, Dilution used 1:300**
8. Bouslama-Oueghlani, L., Wehrle, R., Doulazmi, M., Chen, X.R., Jaudon, F., Lemaigre-Dubreuil, Y., Dusart, I. (2012). Purkinje Cell Maturation Participates in the Control of Oligodendrocyte Differentiation: Role of Sonic Hedgehog and Vitronectin. *PLoS ONE*, 7(11), e49015. **IHC, Dilution used 1:500**
9. Herrera, J.J., Sundberg, L.M., Zentilin, L., Giacca, M., Narayana, P.A. (2010). Sustained Expression of Vascular Endothelial Growth Factor and Angiopoietin-1 Improves Blood–Spinal Cord Barrier Integrity and Functional Recovery after Spinal Cord Injury. *Journal of Neurotrauma*, 27(11), 2067–2076. **IHC, Dilution used 1:75**
10. Solbrig, M.V., Fan, Y., Hermanowicz, N., Morgese, M.G., Giuffrida, A. (2010). A synthetic cannabinoid agonist promotes oligodendroglialogenesis during viral encephalitis in rats. *Experimental Neurology*, 226(1), 231–241. **WB, Dilution used 1:500**
11. Schelshorn, D.W. et al. Expression of Hemoglobin in Rodent Neurons. *Journal of Cerebral Blood Flow & Metabolism* 29.3 (2008): 585-95. **IHC-P, Dilution used 1:500**
12. Hruby, S., Alvord, E.C., Groome, N.P., Dawkes, A., Martenson, R.E. Monoclonal antibodies reactive with myelin basic protein. *Molecular Immunology*, Volume 24, Issue 12, 1987, Pages 1359-1364, ISSN 0161-5890. **ELISA**