Datasheet

Anti-MBP Clone 14

Product Name	Anti Human MBP 14
Catalogue Number	MBP14
Clone, Isotype	MBP 14, IgG2b
Format	IgG
Tested Applications	WB, IHC, IF, ELISA, ICC

Description:
Myelin Basic Protein (MBP) is involved in the process of myelination of nerves in the nervous system. MBP Clone 14 recognizes an epitope in the 36-50 region of MBP, useful in clinical diagnosis to detect MBP levels or myelination in human MBP.

Product Details:

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

Host: Rat

Specificity: Reacts with human MBP, recognizing epitopes in the 36-50 amino acid region (GILDSIGRFFGGDRG).

Fusion partner: Spleen cells from immunised outbred rats were fused with cells of the mouse NS0 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	1:500 [5]
Immunohistochemistry	1:100,000 [1]
Immunofluorescence	1:50 [5]
ELISA	1:2000 [4]
Immunocytochemistry	1:50 [5]

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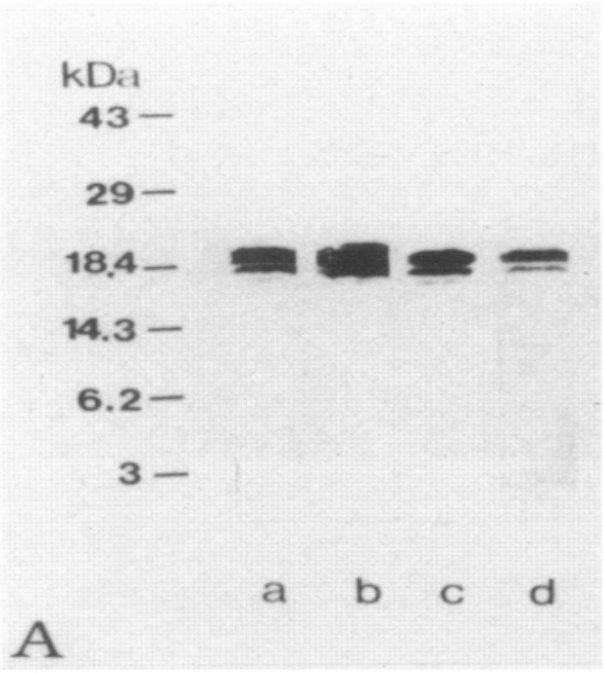
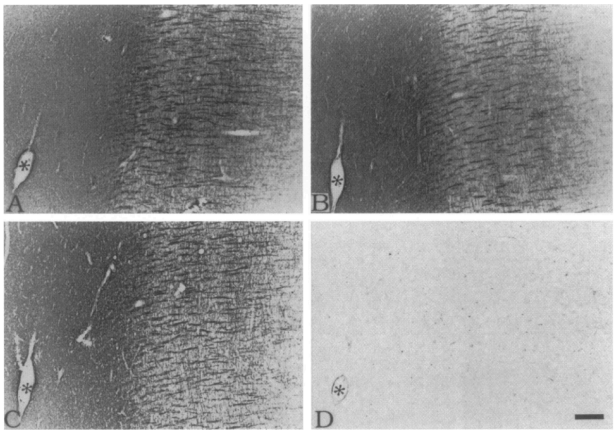
Applications:



Western Blot of MBP Clone 14 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 to1).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 14 used to detect myelinated structures in MS plaques by **IHC-P**
Image caption: ...clone 14 (B), and clone 2 (C) recognized all myelinated structures in control brains, whereas no immunoreactivity was detected by EP antiserum (D)... (Matsuo, A et al.)
Dilution used: 1:100,000

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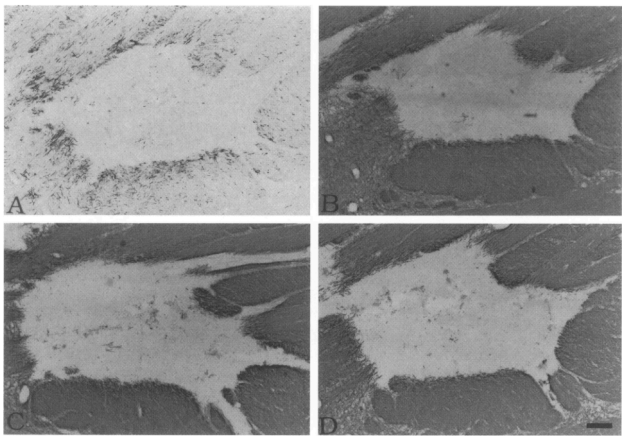
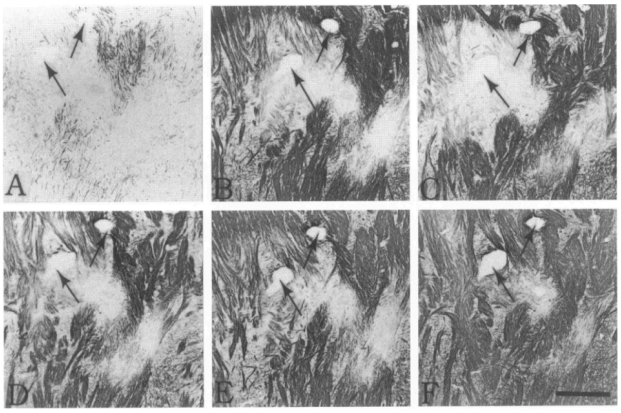


Clone MBP 14 used to detect myelinated structures in MS plaques by **IHC-P**
Image caption: ...C: Clone 14 recognized all myelinated structures... (Matsuo, A et al.)
Dilution used: 1:100,000



Clone MBP 14 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: 1:100,000

References:

1. 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.*
2. Glynn, P., Chantry, A., Groome, N.P., Cuzner, M.L. (1987) Basic Protein Dissociating from Myelin Membranes at Physiological Ionic Strength and pH Is Cleaved into Three Major Fragments. *Journal of Neurochemistry, 48: 752–759*. **WB**
3. Groome, N.P., Dawkes, A., Barry, R., Hruby, S., Alvord, E. Jr. (1988) New monoclonal antibodies reactive with defined sequential epitopes in human myelin basic protein. *Journal of Neuroimmunology, Volume 19, Issue 4, Pages 305-315, ISSN 0165-5728.* **ELISA**
4. Jackson, S.J., Baker, D., Cuzner, M.L., Diemel, L.T. (2004) Cannabinoid-mediated neuroprotection following interferon-gamma treatment in a three-dimensional mouse brain aggregate cell culture. *European Journal of Neuroscience, 20: 2267–2275.* **ELISA, Dilution used 1:2000**
5. Friess, M., Hammann, J., Unichenko, P., Luhmann, H.J., White, R., Kirischuk, S. (2016) Intracellular ion signaling influences myelin basic protein synthesis in oligodendrocyte precursor cells. *Cell Calcium, Volume 60, Issue 5, Pages 322-330, ISSN 0143-4160.* **WB and ICC, Dilutions used 1:500 and 1:50 respectively**

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