Datasheet

Anti-MBP Clone 12

Product Name	Anti Human MBP 12
Catalogue Number	MBP12
Clone, Isotype	MBP 12, IgG2a
Format	IgG
Tested Applications	FC, WB, IHC, ELISA, IF, ICC

Description:
Myelin Basic Protein (MBP) is involved in the process of myelination of nerves in the nervous system. MBP Clone 12 recognizes an epitope in the 82-87 region of MBP, useful in clinical diagnosis to detect MBP levels or myelination in human MBP. MBP 12 is also used in a two-site ELISA with clone MBP 40. Both are used interchangeably as capture and detection antibody.

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 82-87 amino acid region (DENPVV).

Fusion partner: Spleen cells from an immunised outbred rat 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
Flow Cytometry	75µg/ml[1]
Western Blot	1:100-1:2,000
Immunohistochemistry – Paraffin and Frozen	1:10-1:500
ELISA	1:100-1:2,000
Immunofluorescence	1:10-1:500
Immunocytochemistry	1:5-1:1000

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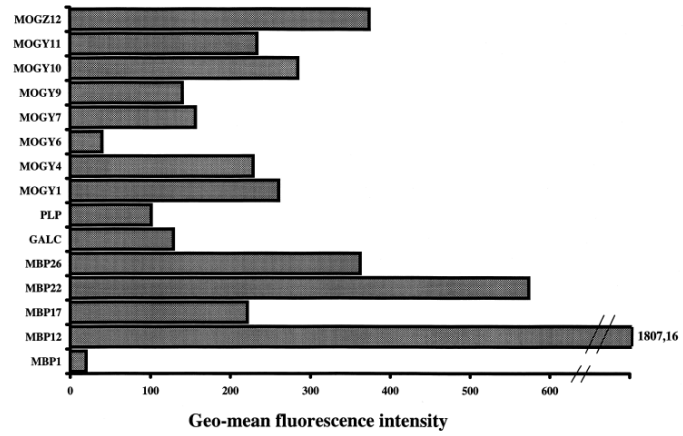
Applications:



Clone MBP12 used to detect mouse myelin binding via Flow Cytometry

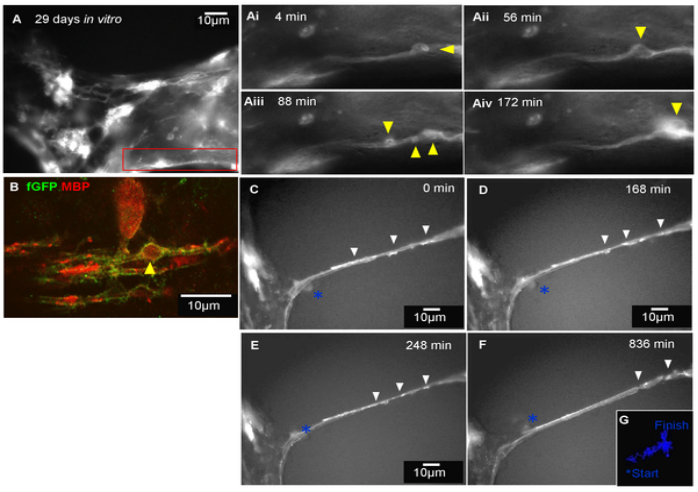
Image caption: Incubation of mouse myelin with mAb against myelin components. The binding is visualized by incubating the mAb-myelin with fluorescent labelled conjugates. The fluorescence intensity (FL2) of the myelin was measured using FACScan flow Cytometry. The data are presented as the geo-mean of fluorescence of one representative experiment (n=4). (Van der Goesa, et al.)

Dilution used: 75µg/ml

Clone MBP 12 used to detect myelinated structures in MS plaques by **IHC-P**

Image caption: 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



Clone 12 used to detect MBP in myelinating cell cultures using **Immunofluorescence**

Image caption: Time-lapse imaging of the putative assembly of myelin membrane. B) The cells from the Petri dish imaged with confocal microscopy were immunostained with anti-GFP and anti-MBP to confirm differentiation of cyto-GFP labelled oligodendrocytes. (Ioannidou, K et al.)

Dilution used: 1:500

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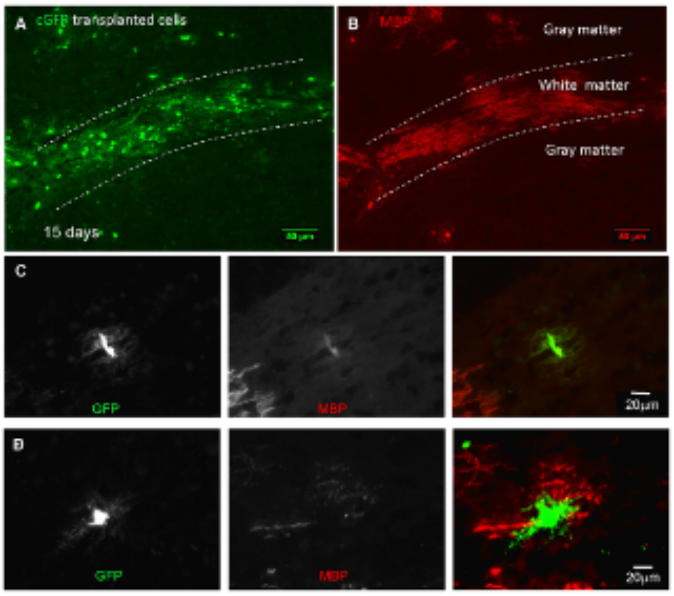
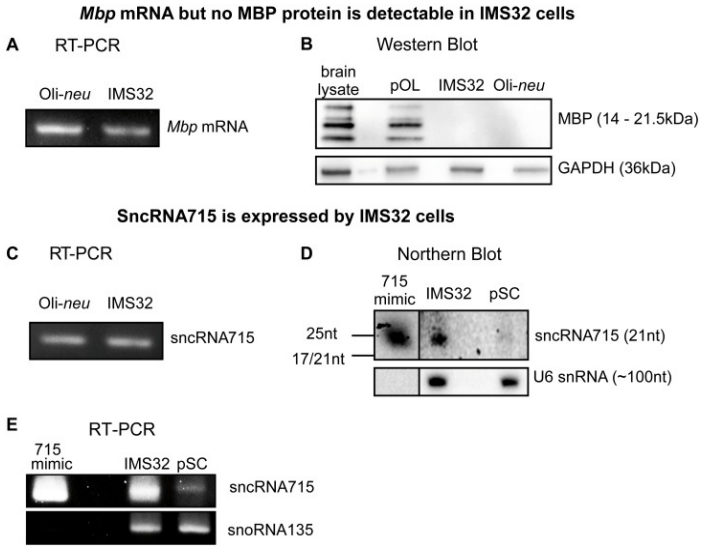


Clone 12 used to detect MBP in myelinating cell cultures using **Immunofluorescence**
Image caption: Immunohistochemistry of transplanted neurospheres demonstrate that cyto-GFP labelled cells form early and mature myelinating oligodendrocytes.
Cyto-GFP-expressing neurospheres were transplanted into a *shiverer* mouse 3, 7 or 15 days post-transplantation, and 10 µm thick frozen sections were cut and immunolabelled with antibodies to GFP and MBP (Ioannidou, K et al.)
Dilution used: 1:500



Clone 12 used to detect expression of MBP in mouse brain lysates via **Western Blot**
Image caption: …B, Western Blots of lysates from P18 mouse brain (brain lysate), primary oligodendrocytes (pOL, 7DIV), IMS32 and Oli-*neu* cells using MBP and GAPDH (loading control) specific antibodies… (Müller, C et al.)
Dilution used: 1:500

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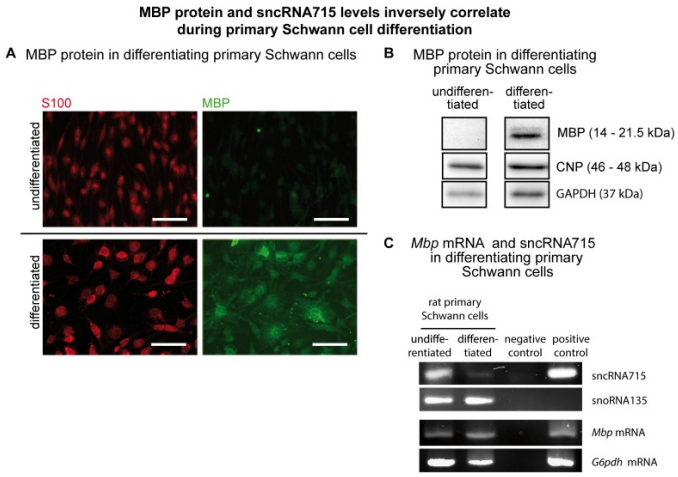
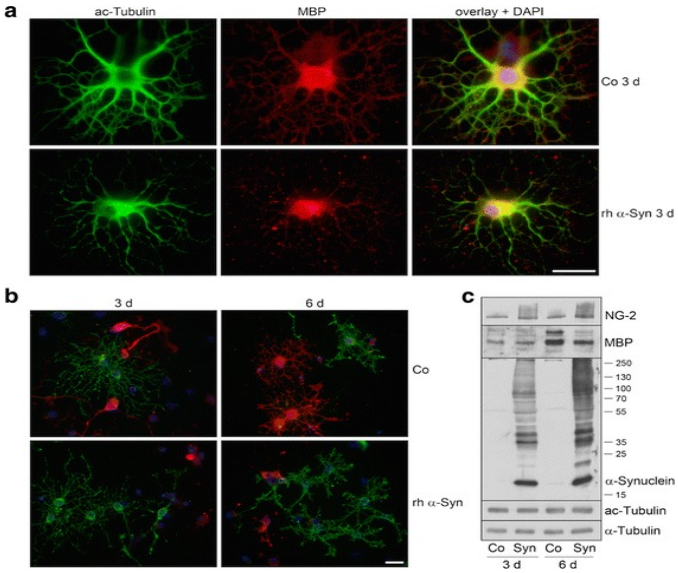


Clone 12 used to detect expression of MBP in mouse brain lysates via **Western Blot** and **ICC**

Image caption: ...A. MBP protein can only be detected by immunocytochemistry in differentiated Schwann cells **B**, Western Blots of undifferentiated and differentiated primary Schwann cells show MBP protein only present in differentiated Schwann cells **C**, MBP and sncRNA715-specific RT-PCR on RNA extracted from undifferentiated or differentiated primary Schwann cells (Müller, C et al.)

Dilution used: 1:50 (ICC) 1:500 (WB)



Clone 12 used to detect MBP in mouse oligodendrocytes using **Immunofluorescence** and **Western Blot**

Image caption: α-Syn impairs oligodendrocyte maturation. Oligodendrocyte progenitor cells were either untreated (Co) or incubated with rh α-Syn (10 µg/ml) 2 h after plating for 3 or 6 days. Cells were subjected to immunocytochemistry using antibodies: **a** anti-acetylated α-tubulin (*green*) and anti-MBP (*red*); **b** anti-proteoglycan NG-2 (*green*) and anti-MBP (*red*). Nuclei were stained with DAPI (*blue*). Scale bar: 20 µm. **c** Exogenously applied α-Syn led to an increase in NG-2 and a decrease in MBP levels. (Grigoletto, J et al.)

Dilution used: 1:1500 (WB) 1:200 (ICC)

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References:

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