

Anti-Myelin Basic Protein antibody ab40390

★★★★★ [20 Abreviews](#) [241 References](#) [3 图像](#)

概述

产品名称	Anti-Myelin Basic蛋白抗体
描述	兔多克隆抗体to Myelin Basic蛋白
宿主	Rabbit
经测试应用	适用于: WB, ICC
种属反应性	与反应: Mouse, Rat
免疫原	Synthetic peptide corresponding to Mouse Myelin Basic Protein aa 150 to the C-terminus conjugated to keyhole limpet haemocyanin. Database link: P04370 (Peptide available as ab40389)
常规说明	<p>For a recombinant version of Myelin Basic Protein antibody () - see ab209328 - clone IGX3421. WB, ICC/IF, IHC-P, Human, Mouse, Rat</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
存储溶液	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS
纯度	<p>Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.</p> <p>Immunogen affinity purified</p>

克隆

多克隆

同种型

IgG

应用

The Abpromise guarantee

Abpromise™承诺保证使用ab40390于以下的经测试应用

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB	★★★★★ (6)	Use a concentration of 1 µg/ml. Predicted molecular weight: 33 kDa.Can be blocked with Mouse Myelin Basic Protein peptide (ab40389) .
ICC		Use a concentration of 1 µg/ml.

靶标

功能

The classic group of MBP isoforms (isoform 4-isoform 14) are with PLP the most abundant protein components of the myelin membrane in the CNS. They have a role in both its formation and stabilization. The smaller isoforms might have an important role in remyelination of denuded axons in multiple sclerosis. The non-classic group of MBP isoforms (isoform 1-isoform 3/Golli-MBPs) may preferentially have a role in the early developing brain long before myelination, maybe as components of transcriptional complexes, and may also be involved in signaling pathways in T-cells and neural cells. Differential splicing events combined with optional post-translational modifications give a wide spectrum of isomers, with each of them potentially having a specialized function. Induces T-cell proliferation.

组织特异性

MBP isoforms are found in both the central and the peripheral nervous system, whereas Golli-MBP isoforms are expressed in fetal thymus, spleen and spinal cord, as well as in cell lines derived from the immune system.

疾病相关

Note=The reduction in the surface charge of citrullinated and/or methylated MBP could result in a weakened attachment to the myelin membrane. This mechanism could be operative in demyelinating diseases such as chronical multiple sclerosis (MS), and fulminating MS (Marburg disease).

序列相似性

Belongs to the myelin basic protein family.

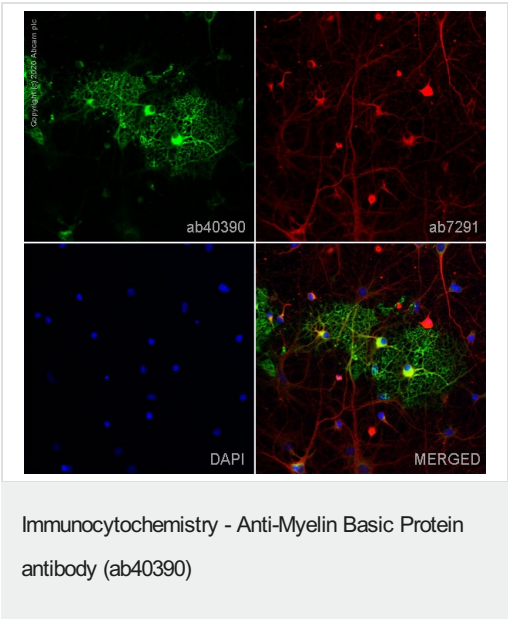
发展阶段

Expression begins abruptly in 14-16 week old fetuses. Even smaller isoforms seem to be produced during embryogenesis; some of these persisting in the adult. Isoform 4 expression is more evident at 16 weeks and its relative proportion declines thereafter.

翻译后修饰

Several charge isomers of MBP; C1 (the most cationic, least modified, and most abundant form), C2, C3, C4, C5, C6, C7, C8-A and C8-B (the least cationic form); are produced as a result of optional PTM, such as phosphorylation, deamidation of glutamine or asparagine, arginine citrullination and methylation. C8-A and C8-B contain each two mass isoforms termed C8-A(H), C8-A(L), C8-B(H) and C8-B(L), (H) standing for higher and (L) for lower molecular weight. C3, C4 and C5 are phosphorylated. The ratio of methylated arginine residues decreases during aging, making the protein more cationic.
The N-terminal alanine is acetylated (isoform 3, isoform 4, isoform 5 and isoform 6). Arg-241 was found to be 6% monomethylated and 60% symmetrically dimethylated.

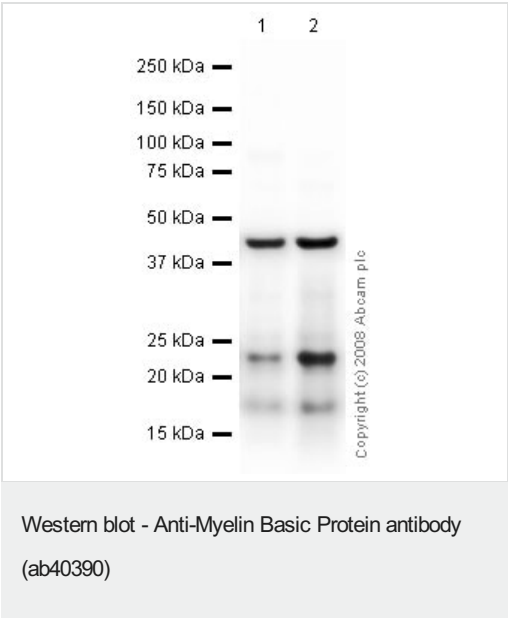
图片



ab40390 staining Myelin Basic Protein in primary hippocampal rat neurons/glia, (obtained from Neuromics, cat. no. PC35101), DIV14. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab40390 at 1µg/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).

Also suitable in cells fixed with 4% paraformaldehyde (10 min).

Image was acquired with a confocal microscope (Leica-Microsystems TCS SP8) and a single confocal section is shown.



All lanes : Anti-Myelin Basic Protein antibody (ab40390) at 1 µg/ml

Lane 1 : Brain (Mouse) Tissue Lysate

Lane 2 : Brain (Rat) Tissue Lysate - normal tissue

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat polyclonal to rabbit IgG - H&L - Pre adsorbed (HRP) at 1/3000 dilution

Performed under reducing conditions.

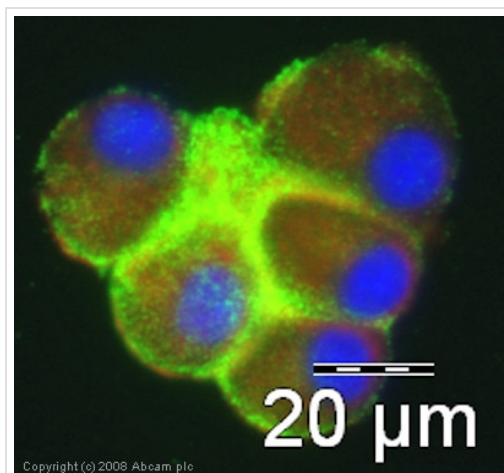
Predicted band size: 33 kDa

Observed band size: 18,23 kDa

Additional bands at: 45 kDa. We are unsure as to the identity of these extra bands.

This antibody was raised against an immunogen that is predicted to

recognize isoforms (5, 7, 8, 10 and 13) of Myelin Basic Protein (MBP). The predicted molecular weights of isoforms (5, 7, 8, 10 and 13) are 18.5kDa, 17kDa, 14kDa, 21kDa and 13kDa respectively.



Immunocytochemistry - Anti-Myelin Basic Protein antibody (ab40390)

ICC/IF image of ab40390 stained PC12 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab40390, 5μg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue).

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