# abcam

# Product datasheet

# Anti-Myelin Basic Protein antibody ab65988

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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

适用于: WB, IHC-P 经测试应用

种属反应性 与反应: Mouse, Rat, Human

免疫原 A synthetic peptide corresponding to a sequence at the C-terminal of the human Myelin Basic

Protein, identical to the related rat and mouse sequences.

阳性对照 WB: Human liver. Rat brain tissue lysate. IHC-P: Rat and mouse brain tissue. Human liver tissue.

常规说明 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.

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

性能

形式

存放说明 Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw

cycles.

存储溶液 Preservatives: 0.025% Thimerosal (merthiolate), 0.025% Sodium azide

Constituents: 2.5% BSA, 0.45% Sodium chloride, 0.1% Dibasic monohydrogen sodium

纯度 Immunogen affinity purified

克隆 多克隆 同种型 lgG

应用

## The Abpromise guarantee

#### Abpromise™承诺保证使用ab65988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		Use a concentration of 1 - 2 µg/ml. Detects a band of approximately 21.5 kDa (predicted molecular weight: 21.5 kDa).
IHC-P		Use a concentration of 1 - 2 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

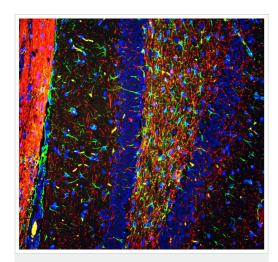
Several charge isomers of MBP; C1 (the most cationic, least modified, and most abundant form), C2, C3, C4, C5, C6, C7, C8-A and C8-B (the least cationic form); are produced as a result of optional PTM, such as phosphorylation, deamidation of glutamine or asparagine, arginine citrullination and methylation. 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.

#### 细胞定位

Myelin membrane. Cytoplasmic side of myelin.

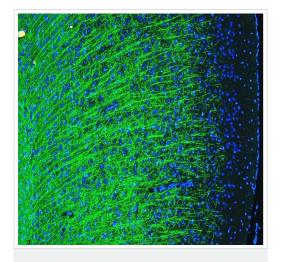
## 图片



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Myelin Basic Protein antibody - Carboxyterminal end (ab65988)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Myelin Basic Protein using ab65988.

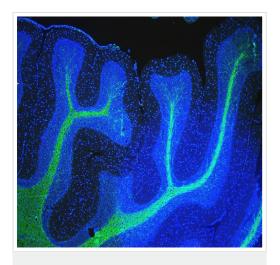
Myelin Basic Protein was detected in paraffin-embedded section of rat brain tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/mL ab65988 and anti-GFAP antibody overnight at 4°C. DyLight®488 Conjugated Goat Anti-Mouse lgG (BA1126), Cy3 Conjugated Goat Anti-Rabbit lgG (BA1032) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



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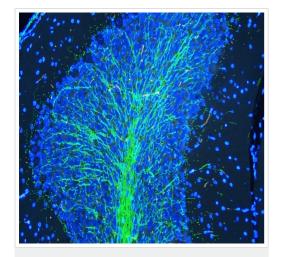
Myelin Basic Protein was detected in paraffin-embedded section of rat brain tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/mL ab65988 overnight at 4°C. DyLight®488 Conjugated Avidin was used and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used



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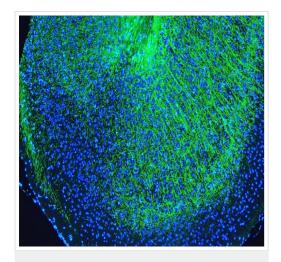
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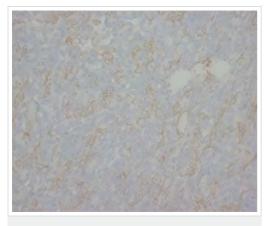
Myelin Basic Protein was detected in paraffin-embedded section of mouse brain tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/mL ab65988 overnight at 4°C. DyLight®488 Conjugated Avidin was used and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



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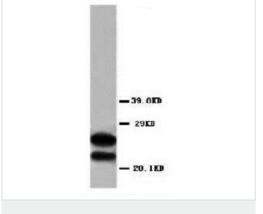
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Myelin Basic Protein using ab65988.

Myelin Basic Protein was detected in paraffin-embedded section of rat brain tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml ab65988 overnight at 4°C. Biotinylated goat anti-rabbit lgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex with DAB as the chromogen.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Myelin Basic Protein antibody - Carboxyterminal end (ab65988)

ab65988, at  $1\mu g/ml$ , staining Myelin Basic Protein in paraffinembedded human liver tissue by immunohistochemistry.



Western blot - Anti-Myelin Basic Protein antibody - Carboxyterminal end (ab65988)

Anti-Myelin Basic Protein antibody (ab65988) at 1  $\mu$ g/ml + Rat Brain tissue lysate

**Predicted band size:** 21.5 kDa **Observed band size:** 21.5 kDa

Additional bands at: 25 kDa. We are unsure as to the identity of

these extra bands.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- · We investigate all quality concerns to ensure our products perform to the highest standards

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