

Anti-Myelin Basic Protein antibody [EPR21188] ab218011

重组 RabMAb

★★★★★ **4 Abreviews** **18 References** **7 图像**

概述

产品名称	Anti-Myelin Basic蛋白抗体[EPR21188]
描述	兔单克隆抗体[EPR21188] to Myelin Basic蛋白
宿主	Rabbit
经测试应用	适用于: WB, IHC-P, IHC-Fr 不适用于: ICC/IF
种属反应性	与反应: Mouse, Rat, Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: Mouse brain, cerebral cortex and midbrain tissue lysates; rat cerebral cortex, cerebellum and brain tissue lysates; human cerebellum and brain cortex tissue lysates. IHC-P: Human cerebrum tissue; mouse brain tissue; rat brain tissue; IHC-Fr: Mouse brain (cerebrum) tissue; rat brain (cerebrum) tissue.
常规说明	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information see here . Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents .

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 long term. Avoid freeze / thaw cycle.
存储溶液	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.05% BSA
纯度	Protein A purified
克隆	单克隆

克隆编号 EPR21188
同种型 IgG

应用

The Abpromise guarantee **Abpromise™**承诺保证使用ab218011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	★★★★★ (1)	1/1000. Detects a band of approximately 14-21.5 kDa (predicted molecular weight: 33 kDa).
IHC-P		1/5000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IHC-Fr		1/5000. Perform heat-mediated antigen retrieval by using ab94681 (Tris-EDTA buffer, pH 9.0)

应用说明 Is unsuitable for ICC/IF.

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 chronic 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),

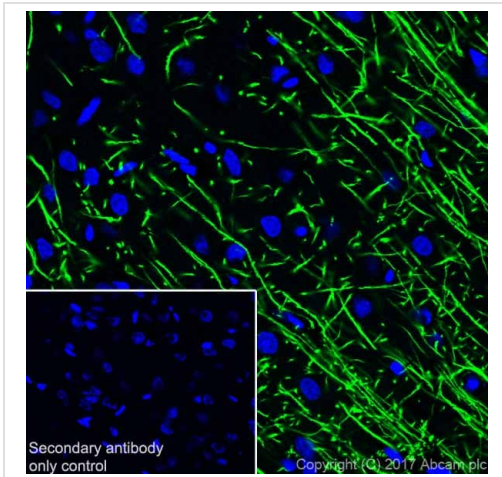
C8-A(L), C8-B(H) and C8-B(L), (H) standing for higher and (L) for lower molecular weight. C3, C4 and C5 are phosphorylated. The ratio of methylated arginine residues decreases during aging, making the protein more cationic.

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.

Myelin membrane. Cytoplasmic side of myelin.

细胞定位

图片

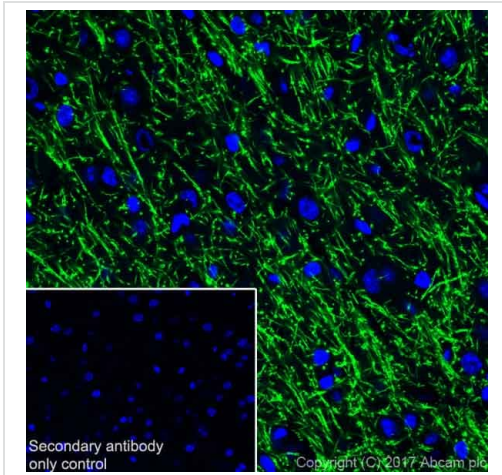


Immunohistochemistry (Frozen sections) - Anti-Myelin Basic Protein antibody [EPR21188] (ab218011)

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen rat brain (cerebrum) tissue labeling Myelin Basic Protein with ab218011 at 1/5000 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) ([ab150077](#)) at 1/1000 dilution (green). Positive staining in the axonal fiber tracts on rat cerebrum tissue section (PMID: 23144976) is observed. The nuclear counterstain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) ([ab150077](#)) at 1/1000 dilution.

Perform heat-mediated antigen retrieval by using [ab94681](#) (Tris-EDTA buffer, pH 9.0)



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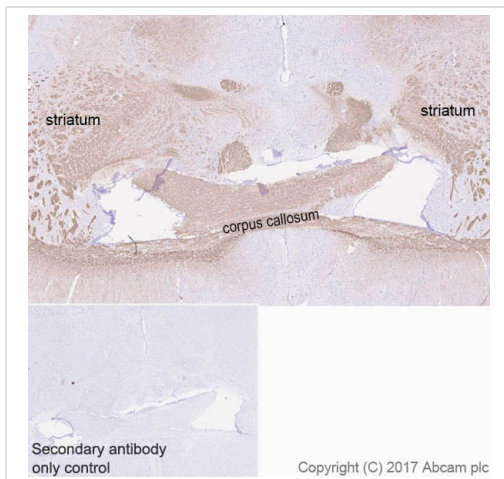


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Myelin Basic Protein antibody [EPR21188] (ab218011)

Immunohistochemical analysis of paraffin-embedded rat brain tissue labeling Myelin Basic Protein with ab218011 at 1/5000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on rat brain (PMID: 23144976) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval using [ab93684](#) (Tris/EDTA buffer, pH 9.0).

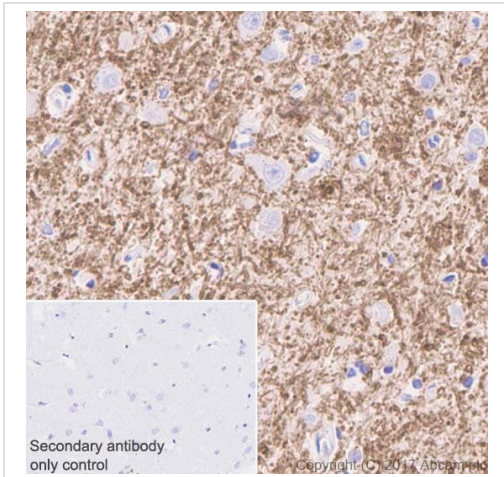


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Immunohistochemical analysis of paraffin-embedded mouse brain tissue labeling Myelin Basic Protein with ab218011 at 1/5000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on mouse brain (PMID: 23144976) is observed. Counter stained with Hematoxylin.

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Perform heat mediated antigen retrieval using [ab93684](#) (Tris/EDTA buffer, pH 9.0).

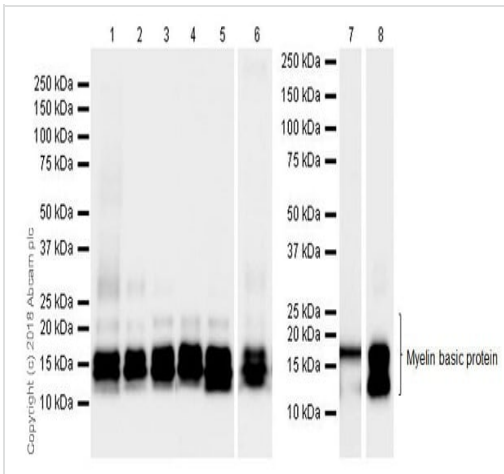


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Myelin Basic Protein antibody [EPR21188] (ab218011)

Immunohistochemical analysis of paraffin-embedded human cerebrum tissue labeling Myelin Basic Protein with ab218011 at 1/5000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining in human cerebrum (PMID: 22496821) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval using [ab93684](#) (Tris/EDTA buffer, pH 9.0).



Western blot - Anti-Myelin Basic Protein antibody [EPR21188] (ab218011)

Lanes 1-6 : Anti-Myelin Basic Protein antibody [EPR21188] (ab218011) at 1/5000 dilution

Lanes 7-8 : Anti-Myelin Basic Protein antibody [EPR21188] (ab218011) at 1/1000 dilution

Lane 1 : Mouse brain tissue lysate

Lane 2 : Mouse cerebral cortex tissue lysate

Lane 3 : Mouse midbrain tissue lysate

Lane 4 : Rat cerebral cortex tissue lysate

Lane 5 : Rat cerebellum tissue lysate

Lane 6 : Rat brain tissue lysate

Lane 7 : Human cerebellum tissue lysate

Lane 8 : Human brain cortex tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary

Lanes 1-6 : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Lanes 7-8 : VeriBlot for IP Detection Reagent (HRP) (**ab131366**)
at 1/1000 dilution

Developed using the ECL technique.

Predicted band size: 33 kDa

Observed band size: 14-21.5 kDa

Blocking and dilution buffer: 5% NFDM/TBST.


Exposure times.

Lanes 1-5 & 8: 15 seconds.

Lane 6: 7 seconds.

Lane 7: 32 seconds.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results

Long-term and scalable supply
Recombinant technology

Success from the first experiment
Confirmed specificity

Ethical standards compliant
Animal-free production

Anti-Myelin Basic Protein antibody [EPR21188]
(ab218011)

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

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