# abcam

# Product datasheet

# Native Pig Myelin Basic Protein ab64311

1 References 1 图像

描述

产**品名称** Native猪Myelin Basic蛋白

纯**度** > 90 % Densitometry.

Native pig Myelin Basic Protein was extracted under acidic conditions and further purified by

cation chromatography.

表达系统 Native

**蛋白长度** Full length protein

**无**动**物成分** No **性**质 Native

**种属** Pig

技术指标

Our Abpromise guarantee covers the use of ab64311 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用 SDS-PAGE

形式 Liquid

补充说明 ab64311 (Myelin Basic Protein protein) can be utilized as a substrate for the following active

protein kinases:

ab51441 (Active human MNK2 full length protein)

ab55709 (Active human Flt3 / CD135 protein fragment)

ab55716 (Active human Myosin IIIB protein fragment)

ab56636 (Active human MAP4K5 full length protein)

ab60327 (Active mouse Aurora A full length protein)

ab60342 (Active human NEK2 full length protein)

ab60698 (Active human NEK6 full length protein)

ab60860 (Active human IRAK4 full length protein)

ab60867 (Active human HIPK1 protein fragment)

ab60879 (Active human RIP2 protein)

ab60885 (Active human STK3 full length protein)

ab61426 (Active human TAO kinase 2 protein fragment)

ab63169 (Active human TAOK1 protein fragment)

ab63191 (Active human DAP Kinase 1 protein fragment)

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ab63192 (Active human ZIP Kinase full length protein)
ab63209 (Active human MEK1 full length protein)
ab64303 (Active human CDK7 + Cyclin H + MNAT1 full length protein)
ab69925 (Active human HIPK4 full length protein)
ab70075 (Active human TSSK2 full length protein)
ab70614 (Active human ROR2 protein fragment)
ab71693 (Active MUSK protein fragment)
ab85275 (Active human PBK full length protein)
ab85276 (Active human NAK full length protein)
ab85293 (Active human SRPK2 full length protein)
ab85295 (Active human SRPK1 full length protein)
ab85297 (Active human MEKK3 full length protein)
ab85299 (Active human MEKK2 full length protein)
ab85601 (Active human HIPK3 protein fragment)
ab85759 (Active human CLK3 full length protein)
ab85838 (Active human PKR protein fragment)
ab89589 (Active human Mps1 full length protein)
ab89591 (Active human STK33 full length protein)
ab89692 (Active human TAK1 + TAB1 protein fragment)
ab89694 (Active human RIPK5 full length protein)
ab89758 (Active human NEK3 full length protein)
ab89852 (Active human ZAK full length protein)
ab101774 (Active human ICK full length protein)
ab101775 (Active human MAP4K4 protein fragment)
ab104027 (Active human MEKK1 protein fragment)
ab105210 (Active human NFkB Inducing Kinase NIK protein fragment)
ab105904 (Active human ERK1 full length protein)
ab107696 (Active human STK39 full length protein)
ab107700 (Active human NLK full length protein)
ab107953 (Active human MAP4K1 protein)
ab119725 (Active human TNIK protein fragment)
ab125544 (Active human NEK11 full length protein)
ab125553 (Active mouse HIPK2 protein fragment)
ab125554 (Active human MAP3K9 protein fragment)
ab125558 (Active human PLK4 protein fragment)
ab125562 (Active human MLK2 protein fragment)
ab125566 (Active human RIP3 full length protein)
ab125574 (Active human YANK2 full length protein)
ab125588 (Active human STK25 full length protein)
ab125614 (Active human NEK9 protein fragment)
ab125622 (Active human ULK2 protein fragment)
ab125630 (Active human MLK3 protein fragment)
ab125631 (Active mouse Tau tubulin kinase 2 protein fragment)
ab125656 (Active human ULK1 protein fragment)
ab126913 (Active human ERK5 full length protein)
ab126926 (Active human BMPR2 protein fragment)
ab133140 (Active human NEK5 protein fragment)
ab133146 (Active human NEK1 protein fragment)
ab139615 (Active human STK36 protein fragment)
ab140807 (Active human ROR1 protein fragment)
ab151882 (Human Smad3 full length protein)
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ab155812 (Active ERK2 full length protein)

#### 制备和贮存

#### 稳定性和存储

Store at -20°C. Stable for 12 months at -20°C

pH: 6.50

#### 常规信息

#### 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

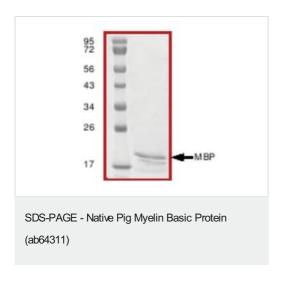
Several charge isomers of MBP; C1 (the most cationic, least modified, and most abundant form), C2, C3, C4, C5, C6, C7, C8-A and C8-B (the least cationic form); are produced as a result of optional PTM, such as phosphorylation, deamidation of glutamine or asparagine, arginine citrullination and methylation.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



ab64311 on SDS-PAGE, MW 21.5kDa.

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