

## MBP Protein

Native protein purified from Swine brain

**Catalog # M42-51N**

Lot # O941-4

### Product Description

Native Swine MBP was extracted under acidic conditions and further purified by cation chromatography from pig brain (1). This product is routinely evaluated using active MAP Kinase 3/ERK1.

### Gene Aliases

(None)

### Formulation

Native protein stored in 100mM MOPS, pH 6.5 and 0.1mM PMSF.

### Storage and Stability

Store product at  $-20^{\circ}\text{C}$ . For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

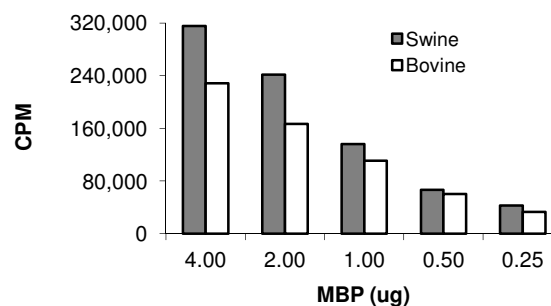
### Scientific Background

MBP exists as four major forms in the pig CNS with apparent molecular weights of 21.5K, 20.2K, 18.5K, and 17.3K (2). Native pig MBP is extracted under acidic conditions and further purified by cation chromatography. MBP is an efficient substrate for numerous protein kinases including ERK/MAP Kinase family, cAMP-dependent Protein Kinase, Calmodulin-dependent Protein Kinase, Protein Kinase C, and Phosphorylase Kinase (3, 4).

### References

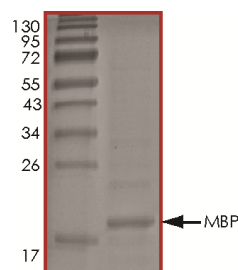
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- Sheng HZ, et al. Developmental study of myelin basic protein variants in various regions of pig nervous system. *J Neurochem.* 1989 Mar;52(3):736-40.
- Sanghera J. et al. Identification of the sites in myelin basic protein that are phosphorylated by meiosis-activated protein kinase p44mpk. *FEBS Lett.* 1990 Oct 29;273(1-2):223-6.
- Martenson, et al., Identification of multiple in vivo phosphorylation sites in rabbit myelin basic protein. *J. Biol. Chem.* 258: 930, 1983.

### Species Comparison



ERK1 activity against two sources of MBP. SignalChem's Swine MBP shows higher phosphate incorporation compared to Bovine MBP.

### Purity



The purity of MBP was determined to be **>90%** by densitometry. The major protein band was approx. MW **21.5kDa**.

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Catalog Number **M42-51N**

Specific Lot Number **O941-4**

Purity **>90%**

Concentration **1 µg/µl**

Stability **1yr at  $-20^{\circ}\text{C}$  from date of shipment**

Storage & Shipping **Store product at  $-20^{\circ}\text{C}$ . For optimal**

**storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on dry ice.**

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