

# PRODUCT INFORMATION



## Myelin Basic Protein (human, bovine, rat) (trifluoroacetate salt)

Item No. 24546

CAS Registry No.: 118506-26-6

Formal Name: L-valyl-L-histidyl-L-phenylalanyl-L-phenylalanyl-L-lysyl-L-asparaginyll-L-isoleucyl-L-valyl-L-threonyl-L-prolyl-L-arginyl-L-threonyl-L-proline, trifluoroacetate salt

H-Val-His-Phe-Phe-Lys-Asn-Ile-Val-Thr-Pro-

Synonym: MBP

Arg-Thr-Pro-OH

MF:  $C_{74}H_{114}N_{20}O_{17} \cdot XCF_3COOH$

FW: 1,555.8

$\cdot XCF_3COOH$

Purity:  $\geq 95\%$

Supplied as: A lyophilized powder

Storage:  $-20^{\circ}C$

Stability:  $\geq 4$  years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Myelin basic protein (MPB) (human, bovine, rat) (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the MBP (human, bovine, rat) (trifluoroacetate salt) in water. The solubility of MBP (human, bovine, rat) (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Myelin basic protein (MPB) peptide is an encephalitogenic peptide and a peptide fragment that corresponds to amino acid residues 221-233 of the human MBP sequence. Active immunization with MPB peptide induces experimental autoimmune encephalomyelitis (EAE) in SJL/J mice and Lewis rats. It induces T cell and microglial activation and MHC class II expression in the spinal cord and decreases latency to paw withdrawal in response to mechanical and thermal stimuli in rats without inducing paralysis.<sup>1</sup> Intranasal administration of MPB peptide, alone or in combination with MBP (68-86), prior to immunization with guinea pig MBP (gp-MBP) confers protection against EAE induction in Lewis rats.<sup>2</sup>

### References

1. Perera, C.J., Lees, J.G., Duffy, S.S., *et al.* Effects of active immunisation with myelin basic protein and myelin-derived altered peptide ligand on pain hypersensitivity and neuroinflammation. *J. Neuroimmunol.* **286**, 59-70 (2015).
2. Liu, J.-Q., Bai, X.-F., Shi, F.-D., *et al.* Inhibition of experimental autoimmune encephalomyelitis in Lewis rats by nasal administration of encephalitogenic MBP peptides: Synergistic effects of MBP 68-86 and 87-99. *Int. Immunol.* **10(8)**, 1139-1148 (1998).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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