10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

MBP Blocking Peptide (Y203)

Synthetic peptide
Catalog # BP2766a

Specification

MBP Blocking Peptide (Y203) - Product Information

Primary Accession P02686

MBP Blocking Peptide (Y203) - Additional Information

Gene ID 4155

Other Names
Myelin basic protein, MBP, Myelin A1 protein, Myelin membrane encephalitogenic protein, MBP

Target/Specificity
The synthetic peptide sequence is selected from aa 192-209 of HUMAN MBP

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

MBP Blocking Peptide (Y203) - Protein Information

Name MBP

Function
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.

Cellular Location
Myelin membrane; Peripheral membrane protein; Cytoplasmic side. Note=Cytoplasmic side of myelin

Tissue Location

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.

MBP Blocking Peptide (Y203) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

MBP Blocking Peptide (Y203) - Images

MBP Blocking Peptide (Y203) - Background

MBP is a major constituent of the myelin sheath of oligodendrocytes and Schwann cells in the nervous system. However, MBP-related transcripts are also present in the bone marrow and the immune system. These mRNAs arise from the long MBP gene (otherwise called Golli-MBP) that contains 3 additional exons located upstream of the classic MBP exons. Alternative splicing from the Golli and the MBP transcription start sites gives rise to 2 sets of MBP-related transcripts and gene products. The Golli mRNAs contain 3 exons unique to Golli-MBP, spliced in-frame to 1 or more MBP exons. They encode hybrid proteins that have N-terminal Golli aa sequence linked to MBP aa sequence. The second family of transcripts contain only MBP exons and produce the well characterized myelin basic proteins. This complex gene structure is conserved among species suggesting that the MBP transcription unit is an integral part of the Golli transcription unit and that this arrangement is important for the function and/or regulation of these genes.

MBP Blocking Peptide (Y203) - References

Kawamura,K., J. Immunol. 181 (5), 3202-3211 (2008)
Majava,V., BMC Struct. Biol. 8, 10 (2008)
Boylan,K.B.,Genomics 6 (1), 16-22 (1990)