

Product datasheet for **RN200502**

Mbp (NM_017026) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Mbp (NM_017026) Rat Untagged Clone
Tag: Tag Free
Symbol: Mbp
Synonyms: Mbps
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >RN200502 representing NM_017026
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGGCATCACAGAAGAGACCCCTCACAGCGACACGGATCCAAGTACTTGGCCACAGCAAGTACCATGGACC
ATGCCCGGCATGGCTTCCTCCCAAGGCACAGACACGGGCATCCTTGACTCCATCGGGCGCTTCTTTAG
CGGTGACAGGGGTGCGCCAAGCGGGCTCTGGCAAGGACTCACACACAAGAAGTACCCACTACGGCTCC
CTGCCCCAGAAGTCGCAGAGGACCAAGATGAAAACCCAGTAGTCCACTTCTTCAAGAACATTGTGACAC
CTCGTACACCCCTCCATCCCAAGGAAAGGGGAGAGGCCTGTCCCTCAGCAGATTTAGCTGGGGAGGAAG
AGACAGCCGCTCTGGATCTCCATGGCAAGACGCTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-MluI

ACCN: NM_017026

Insert Size: 387 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).



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Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_017026.2](#), [NP_058722.1](#)

RefSeq Size: 1976 bp

RefSeq ORF: 387 bp

Locus ID: 24547

UniProt ID: [P02688](#)

Cytogenetics: 18q12.3

Gene Summary: The protein encoded by the classic Mbp gene 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. Mutation of the Mbp gene is associated with the 'shiverer' and 'myelin deficient' phenotypes in mouse. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (5) lacks exons 2 and 6 compared to transcript variant 1 and encodes one of the classic Mbp isoforms (5) that is missing a 26 aa and a 41 aa segment compared to isoform 1.