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Product datasheet for MR201904

Mbp (NM_001025245) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mbp (NM_001025245) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mbp
Synonyms:	C76307; goll; golli-mbp; Hmb; Hmbpr; jv; jve; mld; R75289; shi
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR201904 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGAAACCACTCTGGAAAGAGAGAATTATCTGCTGAGAAGGCCAGTAAGGATGGAGAGATTCACCGAG
GAGAGGCTGGAAAGAAGAGAAGCGTGGGCAAGCTTTCTCAGACGGCCTCAGAGGACAGTGATGTGTTTGG
GGAGGCAGATGCGATCCAGAACAATGGGACCTCGGCTGAGGACACGGCGGTGACAGACTCCAAGCACACA
GCAGACCCAAAGAATAACTGGCAAGGCGCCCACCCAGCTGACCCAGGGAACCGCCCCCACTTGATCCGCC
TCTTTTCCCGAGATGCCCCGGGAAGGGAGGACAACACCTTCAAAGACAGGCCCTCAGAGTCCGACGAGCT
TCAGACCATCCAAGAAGACCCCACAGCAGCTTCCGGAGGCCTGGATGTGATGGCATCACAGAAGAGACCC
TCACAGCGATCCAAGTACCTGGCCACAGCAAGTACCATGGACCATGCCAGGCATGGCTTCCTCCCAAGGC
ACAGAGACACGGGCATCCTTGACTCCATCGGGCGCTTCTTTAGCGGTGACAGGGGTGCGCCCAAGCGGGG
CTCTGGCAAGGTGAGCTCCGAGCCG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR201904 protein sequence
Red=Cloning site Green=Tags(s)

MGNHSGKRELSAEKASKDGEIHRGEAGKKRSVGKLSQTASEDSDVFGEADAIQNNGTSAEDTAVTDSKHT
ADPKNNWQGAHPADPGNRPHLIRLFSRDAPGREDNTFKDRPSESDELQTIQEDPTAASGGLDVMASQKRP
SQRSKYLATASTMDHARHGFLPRHRDTGILDSIGRFFSGDRGAPKRGSGKVSSEP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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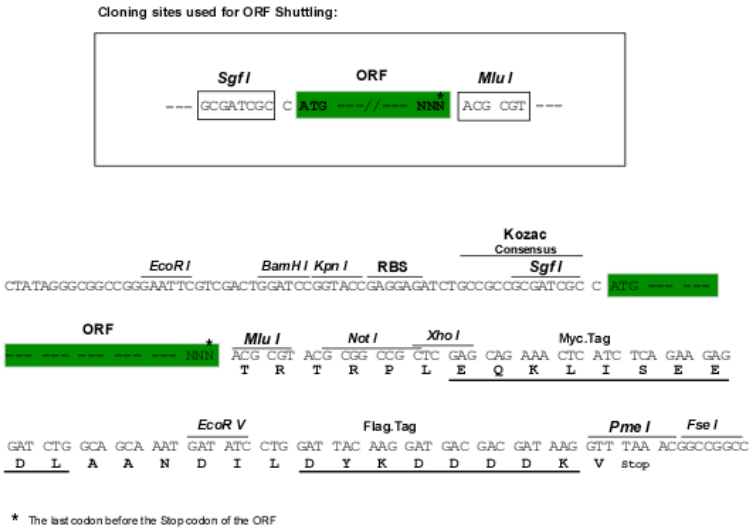
Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001025245

ORF Size: 588 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

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_001025245.1, NP_001020416.1

RefSeq Size: 4820 bp

RefSeq ORF: 588 bp

Locus ID: 17196

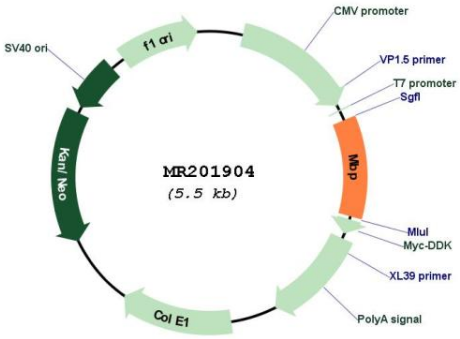
UniProt ID: P04370

Cytogenetics: 18 55.84 cM

MW: 21 kDa

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]

Product images:



Circular map for MR201904