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Product datasheet for RC202450

Myelin Protein Zero (MPZ) (NM_000530) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Myelin Protein Zero (MPZ) (NM_000530) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Myelin Protein Zero
Synonyms:	CHM; CHN2; CMT1; CMT1B; CMT2I; CMT2J; CMT4E; CMTDI3; CMTDID; DSS; HMSNIB; MPP; P0
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC202450 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCTCCGGGCCCCTGCCCCTGCCCCAGCTATGGCTCCTGGGGCTCCCTCATCCAGCCCCAGCCCTATCC
TGGCTGTGCTGCTCTTCTCTTCTTTGGTGCTGTCCCCGGCCCAGGCCATCGTGGTTTACACCGACAGGGA
GGTCCATGGTGCTGTGGGCTCCCGGGTGACCCTGCACTGCTCCTTCTGGTCCAGTGAGTGGGTCTCAGAT
GACATCTCCTTCACCTGGCGCTACCAGCCCGAAGGGGGCAGAGATGCCATTTCGATCTTCCACTATGCCA
AGGGACAACCCTACATTGACGAGGTGGGGACCTTCAAAGAGCGCATCCAGTGGGTAGGGGACCCTCGCTG
GAAGGATGGCTCCATTGTCATACACAACCTAGACTACAGTGACAATGGCACGTTCACTTGTGACGTCAAA
AACCCTCCAGACATAGTGGGCAAGACCTCTCAGGTCACGCTGTATGTCTTTGAAAAAGTGCCAACTAGGT
ACGGGGTCGTTCTGGGAGCTGTGATCGGGGGTGTCCTCGGGGTGGTGCTGTTGCTGCTGCTGCTTTTCTA
CGTGGTTCGGTACTGCTGGCTACGCAGGCAGGCGGCCCTGCAGAGGAGGCTCAGTGCTATGGAGAAGGGG
AAATTGCACAAGCCAGGAAAGGACGCGTCGAAGCGCGGGCGGCAGACGCCAGTGCTGTATGCAATGCTGG
ACCACAGCAGAAGCACCAAAGCTGTCAGTGAGAAGAAGGCCAAGGGGCTGGGGGAGTCTCGCAAGGATAA
GAAA

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC202450 protein sequence
Red=Cloning site Green=Tags(s)

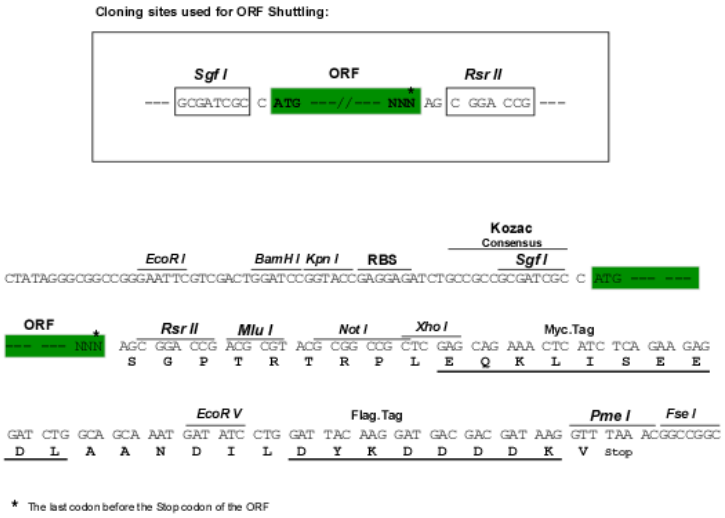
MLRAPAPAPAMAPGAPSSSPSPILAVLLFSSLVLSPAQAIVVYTDREVHGAVGSRVTLHCSFWSSEWVSD
DISFTWRYQPEGGRDAISIFHYAKGQPYIDEVGTFKERIQWVGDPRWKDGSIVIHNLDYSDNGTFTCDVK
NPPDIVGKTSQVTLYVFEKVPTRYGVVLGAVIGGVLGVVLLLLLLFYVVRYCWLRRQAALQRRLSAMEKG
KLHKPGKDASKRGRQTPVLYAMLDHSRSTKAVSEKKAKGLGESRKDKK

SGPTRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6183_d06.zip

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM_000530

ORF Size: 774 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).

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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_000530.5
RefSeq Size:	1980 bp
RefSeq ORF:	747 bp
Locus ID:	4359
UniProt ID:	P25189
Cytogenetics:	1q23.3
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Cell adhesion molecules (CAMs)
MW:	28.5 kDa
Gene Summary:	This gene is specifically expressed in Schwann cells of the peripheral nervous system and encodes a type I transmembrane glycoprotein that is a major structural protein of the peripheral myelin sheath. The encoded protein contains a large hydrophobic extracellular domain and a smaller basic intracellular domain, which are essential for the formation and stabilization of the multilamellar structure of the compact myelin. Mutations in this gene are associated with autosomal dominant form of Charcot-Marie-Tooth disease type 1 (CMT1B) and other polyneuropathies, such as Dejerine-Sottas syndrome (DSS) and congenital hypomyelinating neuropathy (CHN). A recent study showed that two isoforms are produced from the same mRNA by use of alternative in-frame translation termination codons via a stop codon readthrough mechanism. [provided by RefSeq, Oct 2015]

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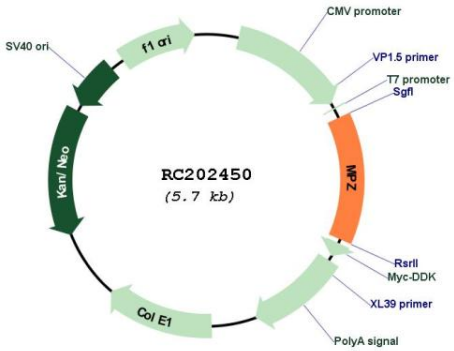
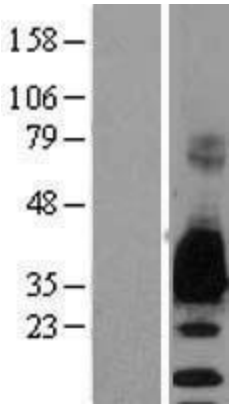
Product images:



Circular map for RC202450



Western blot validation of overexpression lysate (Cat# [LY400178]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202450 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

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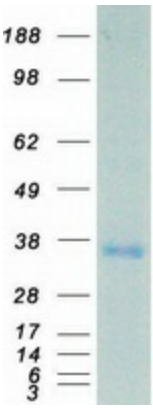

Coomassie blue staining of purified MPZ protein (Cat# [TP302450]). The protein was produced from HEK293T cells transfected with MPZ cDNA clone (Cat# RC202450) using MegaTran 2.0 (Cat# [TT210002]).

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