

## Product datasheet for **RG202450**

### 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:	TurboGFP
Symbol:	Myelin Protein Zero
Synonyms:	CHM; CHN2; CMT1; CMT1B; CMT2I; CMT2J; CMT4E; CMTDI3; CMTDID; DSS; HMSNIB; MPP; PO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG202450 representing NM_000530 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTCCGGGCCCTGCCCTGCCCCAGCTATGGCTCCTGGGCTCCCTCATCCAGCCCCAGCCCTATCC  
TGGCTGTGCTGCTTCTCTTTGGTGTGTCCCGGCCAGGCCATCGTGGTTTACACCGACAGGGA  
GGTCCATGGTGTGTGGGCTCCCGGTGACCCTGCACTGCTCCTTCTGGTCCAGTGAGTGGGTCTCAGT  
GACATCTCCTTACCTGGCGCTACCAGCCGAAGGGGCAGAGATGCCATTCGATCTTCCACTATGCCA  
AGGACAACCCTACATTGACGAGGTGGGACCTCAAAGAGCGCATCCAGTGGTAGGGGACCCTCGCTG  
GAAGGATGGCTCCATTGTATACACAACCTAGACTACAGTGACAATGGCACGTTCACTTGTGACGTCAA  
AACCTCCAGACATAGTGGGCAAGACCTCTCAGGTCACGCTGTATGTCTTTGAAAAAGTCCAACTAGGT  
ACGGGGTCTGTTCTGGGAGCTGTGATCGGGGTGTCTCGGGGTGGTGTGTTGCTGCTGCTTTTCTA  
CGTGGTTCCGTAAGTGTGCTACGCAGGCAGGCCGCCCTGCAGAGGAGGCTCAGTGTATGGAGAAGGGG  
AAATTGCACAAGCCAGGAAAGGACGCTCGAAGCGGGCGGCAGACGCCAGTGTGTATGCAATGCTGG  
ACCACAGCAGAAGCACCAGCTGTGAGTGTGAGAAGAAGGCCAAGGGGCTGGGGAGTCTCGCAAGGATAA  
GAAA

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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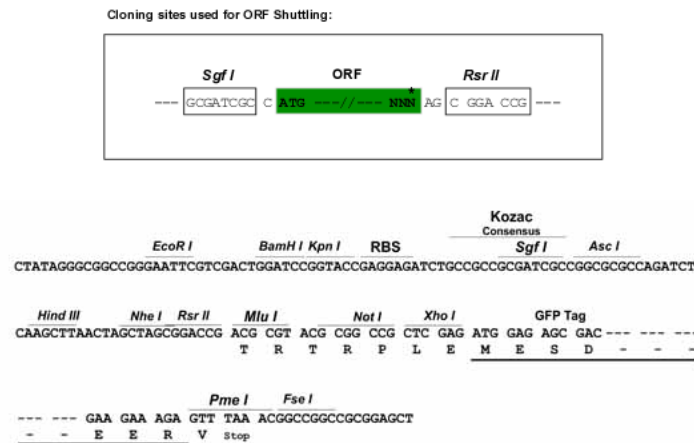
**Protein Sequence:** >RG202450 representing NM\_000530  
 Red=Cloning site Green=Tags(s)

MLRAPAPAMAPGAPSSSPILAVLLFSSLVLSPAQAIVVYTDREHGVAVGSRVTLHCSFWSSEWVSD  
 DISFTWRYQPEGGRDAISIFHYAKGQPYIDEVGTFKERIQWVGDPRWKDGSIVIHNLDYSDNGTFTCDVK  
 NPPDIVGKTSQVTLVYFEKVPTRYGVVLGAVIGGVLGVLLLLLLFYVVRYCWLRRQAALQRRLSAMEKG  
 KLHKPGKDASKRGRQTPVLYAML DHSRSTKAVSEKKAKGLGESRKDKK

SGPTRRRLE - GFP Tag - V

**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).

**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:** 1718 bp

**RefSeq ORF:** 747 bp

**Locus ID:** 4359

**UniProt ID:** [P25189](#)

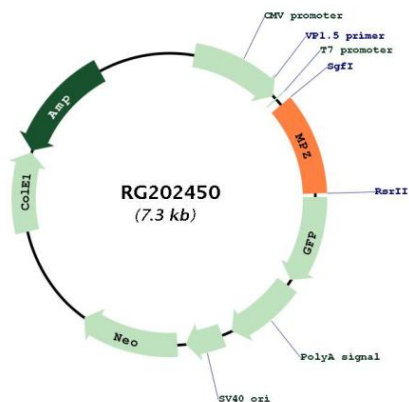
**Cytogenetics:** 1q23.3

**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Cell adhesion molecules (CAMs)

**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]

Product images:



Circular map for RG202450