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Product datasheet for SC122563

Myelin Protein Zero (MPZ) (NM_000530) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Myelin Protein Zero (MPZ) (NM_000530) Human Untagged Clone
Tag:	Tag Free
Symbol:	Myelin Protein Zero
Synonyms:	CHM; CHN2; CMT1; CMT1B; CMT2I; CMT2J; CMT4E; CMTDI3; CMTDID; DSS; HMSNIB; MPP; P0
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

Fully Sequenced ORF:

>OriGene sequence for NM_000530 edited
CACTTTCTCAACCCCACAGATGCTCCGGGCCCCTGCCCCTGCCCCAGCTATGGCTCCTGG
GGCTCCCTCATCCAGCCCCAGCCCTATCCTGGCTGTGCTGCTCTTCTCTTCTTTGGTGCT
GTCCCCGGCCCAGGCCATCGTGGTTTACACCGACAGGGAGGTCCATGGTGCTGTGGGCTC
CCGGGTGACCCTGCACTGCTCCTTCTGGTCCAGTGAGTGGGTCTCAGATGACATCTCCTT
CACCTGGCGCTACCAGCCCGAAGGGGGCAGAGATGCCATTTCGATCTTCCACTATGCCAA
GGGACAACCCTACATTGACGAGGTGGGGACCTTCAAAGAGCGCATCCAGTGGGTAGGGGA
CCCTCGCTGGAAGGATGGCTCCATTGTCATACACAACCTAGACTACAGTGACAATGGCAC
GTTCACTTGTGACGTCAAAAACCCTCCAGACATAGTGGGCAAGACCTCTCAGGTCACGCT
GTATGTCTTTGAAAAAGTGCCAACTAGGTACGGGGTCGTTCTGGGAGCTGTGATCGGGGG
TGTCCTCGGGGTGGTGCTGTTGCTGCTGCTGCTTTTCTACGTGGTTCGGTACTGCTGGCT
ACGCAGGCAGGCGGCCCTGCAGAGGAGGCTCAGTGCTATGGAGAAGGGGAAATTGCACAA
GCCAGGAAAGGACGCGTCGAAGCGCGGGCGGCAGACGCCAGTGCTGTATGCAATGCTGGA
CCACAGCAGAAGCACCAAAGCTGTCAGTGAGAAGAAGGCCAAGGGGCTGGGGGAGTCTCG
CAAGGATAAGAAATAGCGGTTAGCGGGCCGGGCGGGGGATCGGGGGTTAGGGGTGGAGTC
CGCCAAAGGCCCAAAGGTGATGGTCATCGAGATGGAGCTACGAAAGGATGAGCAGAGCCC
GGAGCTCCGGCCTGCTGTCAAGTCCCCCAGCAGAACCAGCCTCAAAAACGCCCTCAAGAA
CATGATGGGCCTGAACTCGGACAAGTGATCGCCACCCCCCCACCCCAGGCCCTGCCAGAG
CAGGGGGACCTAGGCTCCTCTTACCCCCGTCTAGGTGCTTTCCCTCTTTGCTCCCCCGCC
CTGCCCTGCCCTCACCTCCCTTTGAGATGTAAGTTTCATTCCAGAATTCATTCCCCAGCT
CCATACTCTGTCCCCCCAGCTAATACCCAGAGCACCCAGATCAGACTCTCCTTCAGGGTT
TATTTAGGTTATTATTTTTTATTTTTTAATCCATTCTTTGTTTGTTTACCTGTGCTCATC
CTCTGCCCTTACACCCATGACTGAGGACCAATGACGTCATGTGGCTTTTGCAATTCACGC
CCCCCTTAAGTCCTTAATGAAGAGCCAGCCCAAGTAGAGGGGCCCCTGATCCTCACACTT
CAGTATAGCATTGGTTCCCCCTGACCACTTTGGAGCACTGTTCTGGGACTCCAGGTCTTG
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ATGAGCCTTAAGAAATGGTTTTTAAACAACCAAACAAAAAGCAGGAAAAACAAATGGGAA
ATGGGGGGGCGGGGGGGAGGAAGAGGCTGCACTGCAGCCACAGGGGATTCTTAGGATTTT
TCTACATTCTGTATATTTCTTCTCAAACCTCCAAATGTCCTTAAATGTTTAATAAACACT
GACATTTCCAGAAAAAAAAAAAAAAAAAAAAAAAAAA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000530 unedited
NNAAGAGTTCAAAATTTGTAATACGACTCACTATAGGGACCGGCCGCGAATTCGCACGAG
GCACTTTCTCAACCCCACANAGCTCCGGGCCCCTGCCCCTGCCCCAGCTATGGCTCCTGG
GGCTCCCTCATCCAGCCCCAGCCCTATCCTGGCTGTGCTGCTCTTCTCTTCTTTGGTGCT
GTCCCCGGCCCAGGCCATCGTGGTTTACACCGACAGGGAGGTCCATGGTGCTGTGGGCTC
CCGGGTGACCCTGCACTGCTCCTTCTGGTCCAGTGAGTGGGTCTCAGATGACATCTCCTT
CACCTGGCGCTACCAGCCCGAAGGGGGCAGAGATGCCATTTCGATCTTCCACTATGCCAA
GGGACAACCCTACATTGACGAGGTGGGGACCTTCAAAGAGCGCATCCAGTGGGTAGGGGA
CCCTCGCTGGAAGGATGGCTCCATTGTCATACACAACCTAGACTACAGTGACAATGGCAC
GTTCACTTGTGACGTCAAAAACCCTCCAGACATAGTGGGCAAGACCTCTCAGGTCACGCT
GTATGTCTTTGAAAAAGTGCCAACTAGGTACGGGGTCGTTCTGGGAGCTGTGATCGGGGG
TGTCCTCGGGGTGGTGCTGTTGCTGCTGCTGCTTTTCTACGTGGTTCGGTACTGCTGGCT
ACGCAGGCAGGCGGCCCTGCAGAGGAGGCTCAGTGCTATGGAGAAGGGGAAATTGCACAA
GCCAGGANAGGACGCGTCGAAGCGCGGGCGGCAGACGCCAGTGCTGTATGCAATGCTGGA
CCACAGCAGAAGCACCAAAGCTGTCAGTGAGAAGAAGGCCAAGGGNGCTGGGGGAGTCTC
GCAAGGATAAGAAATAGCGTTAGCGGGGCCGGGCGGGGATCGGGGGTTAGGGGTGGGAGT
CCGGCAAAGCCCN

3' Read Nucleotide Sequence:

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>OriGene 3' read for NM_000530 unedited
GGGCTAAATGTCATGTTTCTTATTCATTTAAGGACATTTGGNAGTTTGNGTAATAAATAT
ACAGCAATGTAGCAAAAATCCTAATAATCCCCTGTGGCTGCAGTGCATCCTCTTCCTCCC
CCCCGCCCCCCCATTTCCCATTTGTTTTTCCTGCTTTTTGTTTGGTTGTTTAAAAACCAT
TTCTTAAGGCTCATTTGCCCCCTCCCCCACTCCCTGACCTATGATGATCCATTCTCTCTC
TCTGTCTCTCTCCTCAAGACCTGGAGTCCCAGAACAGTGCTCCAAAGTGGTCAGGGGGAA
CCAATGCTATACTGAAGTGTGAGGATCAGGGGCCCCTCTACTTGGGCTGGCTCTTCATTA
AGGACTTAAGGGGGGCGTGAATTGCAAAAGCCACATGACGTCATTGGTCCTCAGTCATGG
GTGTAAGGGCAGAGGATGAGCACAGGTAAACAAACAAAGAATGGATTAAAAAATAAAAAA
TAATAACCTAAATAAACCCTGAAGGATAGTCTGATCTGGGTGCTCTGGGTATTAGCTGGG
GGGACAGAGTATGGAGCTGGGGAATGAATTCTGGAATGAAACTTACATCTCAAAGGGAGG
TGAGGGCAGGGCATGGCGGGGGAGCAAAGAGGGAAAGCACCTAGACGGGGGTAAGATGAG
CCTATGTCCCCCTGCTCTGGCAGGGCCTGGGGTGGGGGGGTGGCGATCACTTGTCCGAGT
TCAGGCCCATCATGTTCTTGATGGCGTTTTTGAAGCTGGTTCTGCTGGGGGACTTGACAG
CAGGCCCGAGCTCCGGGCTCTGCTCATCCTTTCGTAGCTCCATCTCGATGACCATCACCT
TTGGGCCTTTTGCGGACTCCACCCCTTACCCCCGATCCCNCGCCCAGGCCCGCTAACCGC
TATTTCTTATCCTTGCC
```

Restriction Sites: Please inquire

ACCN: NM_000530

Insert Size: 1720 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).

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_000530.3, NP_000521.1

RefSeq Size: 1718 bp

RefSeq ORF: 777 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]
Transcript Variant: This transcript (1) encodes two isoforms, which result from the use of alternative in-frame translation termination codons. The shorter isoform (MPZ, also known as P0) results from translation termination at the upstream UAG stop codon, while the longer isoform (L-MPZ) results from UAG stop codon readthrough to the downstream UGA termination codon. This RefSeq represents the shorter isoform (MPZ).