

## Product datasheet for **RG227160**

### **POMT1 (NM\_001136114) Human Tagged ORF Clone**

#### **Product data:**

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids                         |
| Product Name:             | POMT1 (NM_001136114) Human Tagged ORF Clone |
| Tag:                      | TurboGFP                                    |
| Symbol:                   | POMT1                                       |
| Synonyms:                 | LGMD2K; LGMDR11; MDDGA1; MDDGB1; MDDGC1; RT |
| Mammalian Cell Selection: | Neomycin                                    |
| Vector:                   | pCMV6-AC-GFP (PS100010)                     |
| E. coli Selection:        | Ampicillin (100 ug/mL)                      |



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**ORF Nucleotide Sequence:**

>RG227160 representing NM\_001136114  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTGGGGATTTTTGAAGCGCCCTGTAGTGGTGACGGCTGACATCAACTTGAGCCTTGTGGCCCTGACTG  
 GGATGGGGTTACTGAGCCGGCTGTGGCGACTCACCTACCCGCGGGCTGTGGTTTTTGACGAAGTATATTA  
 TGGGCAGTACATCTCTTTTTACATGAAACAAATCTTCTTGGATGACAGTGGGCCGCCATTTGGCCAC  
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 CTTATCGAGAATGCTCTCATCACTCAGTCAAGGCTAATGCTTTTGAATCAGTGTAATATTTTTCAATC  
 TATTGGCCGTGTGTCTACCTGAAGTTCTTCACTGCCAAAAGCACAGCCCTTTTCTCTGAGCTGGTG  
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 TCTGTGTCTTCTGCACTTGCTCGCCGAGCAGTGGCTTTGCTGGTCATCCCGGTGCTCCTGTACTTACT  
 GTTCTTCTACGTCCACTTGATTCTAGTCTTCCGCTCTGGGCCCCACGACCAAATCATGTCCAGTGCCTTC  
 CAGGCCAGCTTAGAGGGAGGACTAGCTCGGATCACCCAGGGTACGCCACTGGAGGTGGCCTTTGGGTCCC  
 AGGTCACTCTGAGGAACGTCTTTGGGAAACCTGTGCCCTGCTGGCTTCAATCCCACCAGGACACCTACCC  
 CATGATATATGAGAACGGCCGAGGCAGCTCCACCAGCAACAGGTGACCTGTTACCCCTCAAAGACGTC  
 AATAACTGGTGGATTGTAAGGATCCCAGGAGGCCAGCTGGTGGTGGCAGCCCTCCGAGACCTGTGA  
 GGCACGGGGACATGGTGCAGTGGTCCACGGCATGACCACCCGCTCCCTGAACACGCATGATGTTGCAGC  
 CCCCTGAGCCCCATTACAGGAGGTCTCCTGTACTTACTATAACATCTCCATGCCCGCCAGAAC  
 CTCTGGAGACTGGAAATTGTGAACAGAGGATCTGACACAGACGTCTGGAAGACCATCCTCTCAGAGGTCC  
 GCTTTGTGCAGTGAACACTTCCGCTGTCTAAAGCTGAGCGGGGCTCACCTCCCTGACTGGGGGTATCG  
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 CACCGATACGGCGCAGCCAGGAGCAGAGGGAGCGGGAACGGGAGCTGCACTCACCTGCGCAGGTGGACG  
 TCAGCAGGAACCTCAGCTTCATGGCGAGATTCTCGGAGCTGCAGTGGAGGATGCTGGCGCTGAGAAGTGA  
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 TCAGGATGCCTGGCTGCGCTGGGTGCTGGCTGGGGCGCTGTGTGCCGGTGGCTGGGCAGTGAACCTC  
 CCGTTCTTCTGATGGAGAAGACACTCTTCTCTACCACTACCTGCCCGCACTCACCTTCCAATCCTTC  
 TGCTCCCTGTGGTCTGCAGCACATCAGCGACCACCTGTGCAGGTCCCAGCTCCAGAGGAGCATCTTCAG  
 CGCCCTGGTGGTGGCCTGGTACTCCTCCGCGTCCACGTGTCCAACACGCTGCGCCCACTCACCTACGGG  
 GACAAGTCACTCTCGCCACATGAACTCAAGGCCCTTCGCTGGAAGACAGCTGGGACATCTTGATCCGAA  
 AACAC

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG227160 representing NM\_001136114  
 Red=Cloning site Green=Tags(s)

MWGFLKRPVVVTADINLSLVALTGMGLLSRLWRLTYPRVAVFDEVYVYQYISFYMKQIFFLDDSGPPFGH  
 MYLALGGYLGFDGNFLWNRIGAEYSSNPVWSLRLPALAGALSVPMAYQIVLELHFHSHCAAMGAALLM  
 LIENALITQSRMLLESVLIFFNLLAVLSYLKFFNCQKHSPFSLSWFWLTLTGAVACSCAVGIKYMVFT  
 YVLVLGVAAVHAWHLLGDQTL SNVCVFCHLLARAVALLVIPVVL YLLFFVYVHLILVFRSGPHDQIMSSAF  
 QASLEGGLARITQGQPLEVAFGSQVTLRNVFVKPVCWLHSHQDTYPMIYENGRGSSHQQVTCYPFKDV  
 NNWWIVKDPRRHQLVVSPPRPVRHGMVQLVHGTTTRSLNTHDVAAPLSPHSQEVSCYIDYINISMPAQN  
 LWRLEIVNRGSDTDVWTKILSEVRFVHVNTSAVLKLSGAHLPDWGYRQLEIVGEKLSRGYHGSTVWNVEE  
 HRYGASQEQRRERELHSPAQVDVSRNLSFMARFSELQWRMLALRSDSEHKYSSSPLEWVTLDTNIAYW  
 LHPRTSAQIHLLGNIVIWVSGSLALAIYALLSLWYLLRRRRNVHDL PQDAWL RWVLGALCAGGWAVNYL  
 PFFLMEKTLFLYHYLPALTFQILLLPVVLQHISDHLCRSQRSLFISALVVAWYSSACHVNTLRPLTYG  
 DKSLSPHELKALRWKDSWDILIRKH

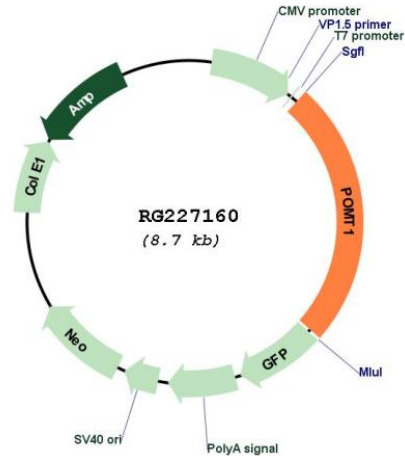
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**Plasmid Map:**


**ACCN:** NM\_001136114

**ORF Size:** 2178 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\\_001136114.1](#), [NP\\_001129586.1](#)

**RefSeq Size:** 2821 bp

**RefSeq ORF:** 1827 bp

**Locus ID:** 10585

UniProt ID: [Q9Y6A1](#)

Cytogenetics: 9q34.13

Protein Families: Transmembrane

Protein Pathways: O-Mannosyl glycan biosynthesis

**Gene Summary:** The protein encoded by this gene is an O-mannosyltransferase that requires interaction with the product of the POMT2 gene for enzymatic function. The encoded protein is found in the membrane of the endoplasmic reticulum. Defects in this gene are a cause of Walker-Warburg syndrome (WWS) and limb-girdle muscular dystrophy type 2K (LGMD2K). Several transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Oct 2008]