

## Product datasheet for **RG202817**

### DPM1 (NM\_003859) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DPM1 (NM_003859) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DPM1
Synonyms:	CDGIE; MPDS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG202817 representing NM_003859 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCTCCTTGGAAGTCAGTCGTAGTCTCGCAGGTCTCGGCGGGAGCTGGAAGTGCGCAGTCCACGAC  
AGAACAAATATTCGGTGTCTTTACCTACCTACAACGAGCGCGAGAACCTGCCGCTCATCGTGTGGCTGT  
GGTAAAAGCTTCTCCGAGAGTGAATCAACTATGAAATTATAATCATAGATGATGGAAGCCAGATGGA  
ACAAGGGATGTTGCTGAACAGTTGGAGAAGATCTATGGGTCAGACAGAATCTTCTAAGACCACGAGAGA  
AAAAGTTGGGACTAGGAACTGCATATTCATGGAATGAAACATGCCACAGGAACTACATCATTATTAT  
GGATGCTGATCTCTCACACCATCCAAAATTTATTCCTGAATTTATTAGGAAGCAAAGGAGGGTAATTTT  
GATATTGTCTCTGGAACCTCGCTACAAAGGAAATGGAGGTGTATATGGCTGGGATTTGAAAAGAAAATAA  
TCAGCCGTGGGGCCAATTTTTAACTCAGATCTTGTGAGACCAGGAGCATCTGATTTAACAGGAAGTTT  
CAGATTATACCGAAAAGAAGTTCTAGAGAAATTAATAGAAAAATGTGTTTCTAAAGGCTACGCTCTCCAG  
ATGGAGATGATTGTTCCGGCAAGACAGTTGAATTATACTATTGGCGAGGTTCCAATATCATTGTGGATC  
GTGTTTATGGTGAATCCAAGTTGGGAGGAAATGAAATAGTATCTTTCTTGAAGGATTATTGACTCTTTT  
TGCTACTACA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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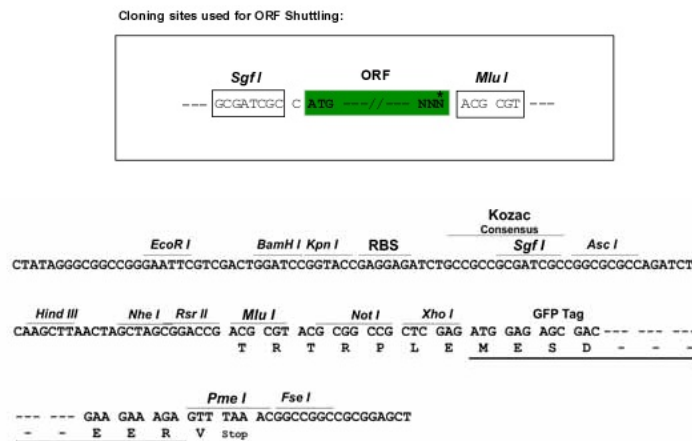
**Protein Sequence:** >RG202817 representing NM\_003859  
 Red=Cloning site Green=Tags(s)

MASLEVSRSRRSRRELEVRSPRQNKYSVLLPTYNERENLPLIVWLLVKSFSSEGINYEIIIIDDGSPDG  
 TRDVAEQLEKIYGSDRILLRPREKKLGLGTAYIHGMKHTGNYIIMDADLSHHPKFIPEFIRKQKEGNF  
 DIVSGTRYKGGVYVWDLKRKII SRGANFLTQILLRPGASDLTGSFRLYRKEVLEKLEKCVSKGYVVFQ  
 MEMIVRARQLNYTIGEVPI SFVDRVYGESKLGNEIVSFLKGLLTLFATT

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_003859

**ORF Size:** 780 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\\_003859.3](#)

**RefSeq Size:** 1047 bp

**RefSeq ORF:** 783 bp

**Locus ID:** 8813

**UniProt ID:** [O60762](#)

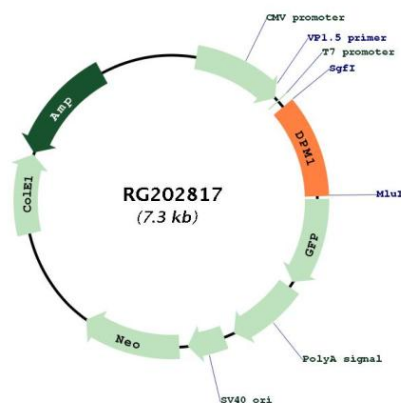
**Cytogenetics:** 20q13.13

**Domains:** Glycos\_transf\_2

**Protein Pathways:** Metabolic pathways, N-Glycan biosynthesis

**Gene Summary:** Dolichol-phosphate mannose (Dol-P-Man) serves as a donor of mannosyl residues on the luminal side of the endoplasmic reticulum (ER). Lack of Dol-P-Man results in defective surface expression of GPI-anchored proteins. Dol-P-Man is synthesized from GDP-mannose and dolichol-phosphate on the cytosolic side of the ER by the enzyme dolichyl-phosphate mannosyltransferase. Human DPM1 lacks a carboxy-terminal transmembrane domain and signal sequence and is regulated by DPM2. Mutations in this gene are associated with congenital disorder of glycosylation type 1e. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Nov 2015]

## Product images:



Circular map for RG202817