

## Product datasheet for **MG208958**

### **Ggt1 (NM\_008116) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Ggt1 (NM_008116) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ggt1
Synonyms:	CD224; dwg; GGT; GGT-1; GGT 1; Ggtp
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG208958 representing NM\_008116  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGAAGAATCGGTTTCTGGTCTGGCCTGGTGGCTGTGGTTCTGGTATTGTGCATCATCGGCCTCTGTA  
 TCTGGTTGCCCTACACCTCTGGGAAGCCCGACACGTGTACTCCAGGGCGCGGTGGCCACCGACGCCAA  
 GCGCTGCTCAGAGATTGGACGGATATCTACAGGAAGGTGGTTCCGTGGTGGATGCAGCCATCGCAAGC  
 CTGCTGTGTATGGGGCTCATGAATGCCACAGTATGGGCATCGGGGGCGGCCTGTTCTTACCATCTACA  
 ACAGCACCACAGGAAAAGTTGAGGTTATCAATGCCCGTGAGGTAGCTCCCAGGTTGGCCAATACCACCAT  
 GTTCAACAACCTCAAGGACTCTGAAGAAGGTGGCCTTTCAGTGGCTGTCCCTGGTAAATCCGTGGTTAT  
 GAGCTGGCACACCAACGACACGGCCGGCTCCCCTGGGCTCGCCTTTCACACCCAGCATCCAGCTGGCTC  
 GCCACGGCTTCCCTGTGGCAAGGGTTTGGCAATAGCCCTGGACAAAAACGGGACGTATTGAGAAGAC  
 CCCTGCCTTGTGGGAGGTGTTCTGCCGCAAGGAAGGTCTTCAAGAAGGAGAGACGGTACTATGCCG  
 AAGCTGGCTGACACATTGACGATACTGGCCAGGAGGGCCCAAGGCCTTCTACAATGGGAGCCTCACAG  
 CCCAGATTGTGAAAGACATCCAGGAGGCTGGTGGCATTATGACGGTTGAGGACCTCAACAACACCGTGC  
 TGAGCTGATTGAGCATCCGATGAGCATCGGCCTCGGTGATGCGACCCTGTACGTGCCAGTGCCCACTC  
 AGCGGGCCCGTGCTGATTCTCATCTTGAACATCTCAAAGGATACAACCTCTCTCCGAAGAGCGTAGCGA  
 CCCCTGAACAGAAGGCACTGACGTATCACCGTATCGTGGAGGCCTTTCGGTTTGCCTATGCCAAGAGGAC  
 CATGCTCGGTGACCCAAAGTTTGTGATGTGTCTCAGGTGATCCGCAACATGAGCTCTGAGTTCTACGCC  
 ACCCAGCTCCGAGCCGCATCACTGATGAAACACCCACCCAGCCGCCTACTATGAGCCTGAATTCTACC  
 TTCAGGATGATGGAGCACCGCTCACCTGTCTCGGTTTCAGAGGATGGCAGTGTGTGGTGGCCTGACCTAG  
 TACCATCAACCTCTACTTTGGCTCCAAGTCTGTCTCGGGTCAGTGGCATCCTGTTAATGATGAGATG  
 GATGACTTCAGCTCGCCAACTTCATCAACCAGTTCAGGGTAGCCCCCTCACAGCCAACCTCATCAAGC  
 CAGGTAAGCAGCCTCTTTCATCCATGTGTCCCTCAATCATCCTGGATAAGGACGGCCAGGTTGCGATGGT  
 GGTGCGGAGCCTCAGGGGTACCCAGATCACACATCTGTTGCACTGGCCATCATCAACAGCCTGTGGTTC  
 GGATACGATGTGAAGAGAGCTGTGGAGGAGCCCGGCTGCACAACCAGCTTTTACCTAATACCACAACGG  
 TAGAGAAAAGACATTGATCAGGTGGTACTGCAGGCCTGAAGATTCGGCACCACCATACAGAAGTCACGCC  
 CACCTTATCGCTGTAGTTCAGGCTGTCGTTGAGCATCAGGTGGTTGGGAGCTGCCTCAGACTCCAGA  
 AAAGCGGGGAACCTGCTGGCTAC

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>MG208958 representing NM\_008116  
 Red=Cloning site Green=Tags(s)

MKNRFLVGLVAVVLFVFIIGLCIWLPTYSGKPDHVYSRAAVATDAKRCSEIGRDILQEGGSVVDAIAS  
 LLCMGLMNAHSMGIGGLFFFTIYNSTTGKVEVINAREVAPRLANTTMFNNSKDSEEGGLSVAVPGEIRGY  
 ELAHRHGRLPWARLFQPSIQLARHGFPVKGGLAIALDKKRDVIEKTPALCEVFCRQGVKLEQEVVTMP  
 KLADTLQILAQEGAKAFYNGSLTAQIVKDIQEAGGIMTVEDLNNYRAELIEHPMSIGLGATLYVPSAPL  
 SGPVLIILNLIKGYNFSKSVATPEQKALTYHRIVEAFRFAYAKRTMLGDPKFVDVSQVIRNMSSEFYA  
 TQLRARITDETHPAAYEPEFYLDQDGGTAHLSAVSEDSAVAATSTINLYFGSKVLSRVSGILFNDEM  
 DDFSSPNFINQFRVAPSPANFIKPGKQPLSSMCPSEIILDKDQVRMVGASGGTQITTSVALAIINSLWF  
 GYDVKRAVEEPRLNQLLPNTTTVEKDIDQVVTAGLIRHHHTEVPTPIAVVQAVVRASGGWAAASDR  
 KGGEPEGY

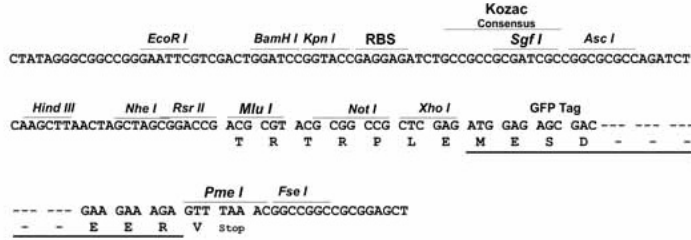
**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

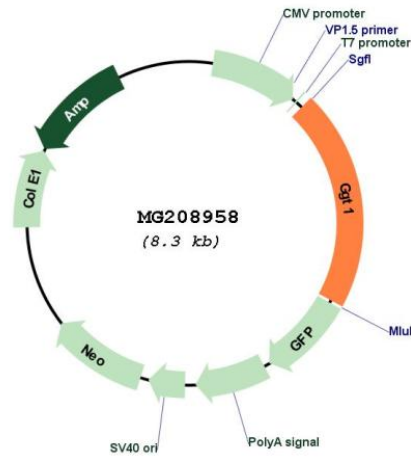
Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**Plasmid Map:**



ACCN:                            NM\_008116  
 ORF Size:                        1704 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_008116.3</a>
<b>RefSeq Size:</b>	2022 bp
<b>RefSeq ORF:</b>	1707 bp
<b>Locus ID:</b>	14598
<b>UniProt ID:</b>	<a href="#">Q60928</a>
<b>Cytogenetics:</b>	10 C1
<b>Gene Summary:</b>	This gene encodes gamma-glutamyl transpeptidase, a plasmamembrane-associated enzyme that cleaves the peptide bond between gamma-glutamyl and cysteinyl glycine moieties of glutathione. The encoded protein is autocatalytically processed to generate an enzymatically active heterodimer comprised of heavy and light chains. Mice lacking the encoded protein grow slowly, develop cataracts and have elevated levels of glutathione in plasma and urine. Transgenic overexpression of the encoded protein in mice enhances osteoclastic bone resorption. The mutant alleles termed 'Dwarf grey' and 'Dwarf grey Bayer' in mice are associated with deletions in this gene. A gamma-glutamyl transpeptidase paralog is located adjacent to this gene. Alternative splicing results in multiple transcript variants. Additional transcripts using alternate promoters and differing in 5' UTRs have been described. [provided by RefSeq, Apr 2015]