

Product datasheet for **RG211552**

GGT1 (NM_001032364) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GGT1 (NM_001032364) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GGT1
Synonyms:	CD224; D22S672; D22S732; GGT; GGT 1; GTG
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG211552 representing NM_001032364
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGAAGAAGTTAGTGGTCTGGCCTGCTGGCCGTGGTCTGGTCTGGTTCATTGTCCGCCCTGTCT
 TCTGGCTGCCCTCAGCCTCCAAGGAACCTGACAACCATGTGTACACCAGGGCTGCCGTGGCCGGATGC
 CAAGCAGTGTCTGAAGATTGGGAGGGATGCACTGCGGGACGGTGGCTCTGCGGTGGATGCAGCCATTGCA
 GCCCTGTGTGTGGGGCTCATGAATGCCACAGCATGGGCATCGGGGGTGGCCTTCTCCTCACCATCT
 ACAACAGCACCACAGAAAAGCTGAGGTCATCAACGCCCGCAGGTGGCCCCAGGCTGGCCTTTGCCAC
 CATGTTCAACAGCTCGGAGCAGTCCCAGAAGGGGGGGTGTGGTGGCGGTGCCTGGGGAGATCCGAGGC
 TATGAGCTGGCACACCAGCGCATGGGCGGTGCCCTGGGCTCGCCTCTTCCAGCCCAGCATCCAGCTGG
 CCCGCCAGGGCTTCCCCGTGGCAAGGGCTTGGCGGCAGCCCTGAAAAACAAGCGGACCGTCATCGAGCA
 GCAGCCTGTCTGTGTGAGGTGTCTGCCGGGATAGAAAGGTGCTTCGGGAGGGGAGAGACTGACCCTG
 CCGCAGCTGGCTGACACCTACGAGACGCTGGCCATCGAGGGTGCCAGGCCCTTACAACGGCAGCCTCA
 CGGCCAGATTGTGAAGGACATCCAGGCGGCCGGGGCATTGTGACAGCTGAGGACCTGAACAACACTACCG
 TGCTGAGCTGATCGAGCACCCGCTGAACATCAGCCTGGGAGACGTGGTGTGTACATGCCAGTGCGCCG
 CTCAGCGGGCCCGTGTGGCCCTCATCCTCAACATCCTCAAAGGGTACAACCTTCTCCCGGAGAGCGTGG
 AGAGCCCCGAGCAGAAGGGCCTGACGTACCACCGCATCGTAGAGGCTTCCGGTTTGCTACGCCAAGAG
 GACCCTGCTTGGGGACCCCAAGTTTGGGATGTGACTGAGGTGGTCCGCAACATGACCTCCGAGTTCTTC
 GCTGCCAGCTCCGGGCCAGATCTCTGACGACACCACTACCCGATCTCTACTACAAGCCCGAGTTCT
 ACACGCGGATGACGGGGCAGTGTCTCACCTGTCTGTCGTCGAGAGGACGGCAGTGTGTCCGCCAC
 CAGCACCATCAACCTCTACTTTGGCTCCAAGGTCCGCTCCCGGTCAGCGGGATCCTGTCAATAATGAA
 ATGGACGACTTACGCTCTCCAGCATACCAACGAGTTTGGGGTACCCCCCTCACCTGCCAATTTTATCC
 AGCCAGGGAAGCAGCCGCTCTCGTCCATGTGCCGACGATCATGGTGGGCCAGGACGGCCAGGTCCGGAT
 GGTGGTGGGAGCTGTGGGGCACACAGATCACCACGGCCACTGCACTGGCCATCATCTACAACCTCTGG
 TTCGGCTATGACGTGAAGCGGGCCGTGGAGGAGCCCCGGCTGCACAACCAGCTTCTGCCAACGTACGA
 CAGTGGAGAGAAACATTGACCAGGCAGTACTGCAGCCCTGGAGACCCGGCACCATCACACCAGATCGC
 GTCCACCTTCATCGTGTGGTGAAGCCATCGTCCGACGGCTGGTGGCTGGGACAGTGCCTCGGACTCC
 AGGAAAGCGGGGAGCCTGCCGGCTAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG211552 representing NM_001032364
 Red=Cloning site Green=Tags(s)

MKKKLVVLGLLAVVLVIVGLCLWLPSASKEPDNHVYTRAAVAADAKQCSKIGRDALRDGGSAVDAAIA
 ALLCVGLMNAHSMIGGGLFLTIYNSTTRKAEVINAREVAPRLAFATMFNSSEQSQKGLSVAVPGEIRG
 YELAHQRHGRLPWARLFQPSIQLARQGFVPGKGLAAALENKRTVIEQQPVLCVFCRDRKVLREGERLTL
 PQLADTYETLIEGAQAFYNGSLTAQIVKDIQAAGGIVTAEDLNRYRAELIEHPLNISLGDVVLVYMPSP
 LSGPVLALILNILKGYNFSRESVESPEQKGLTYHRIVEAFRFAYAKRTLLGDPKFVDVTEVVRNMTSEFF
 AAQLRAQISDDTTHPISYKPEFYTPDDGGTAHLVVAEDGSVAVSATSTINLYFGSKVRSVPVSGILFNNE
 MDDFSSPSITNEFGVPPSPANFIQPGKQPLSSMCPTIMVGQDQVQVMVGAAGGTQITTALAIINYNLW
 FGYDVKRAVEEPRLNQLLPNVTTVERNIDQAVTAALETRHHTQIASTFIAVVQAIVRTAGGWAAASDS
 RKGGEPEGY

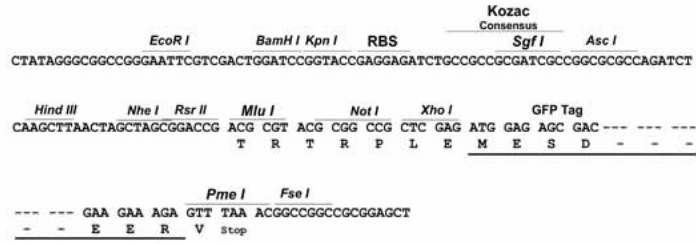
TRTRPLE - GFP Tag - V

Restriction Sites:

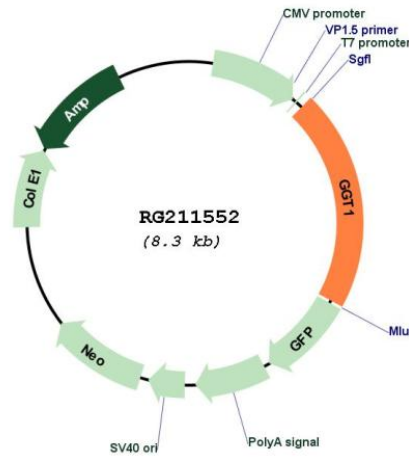
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_001032364

ORF Size: 1707 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:	<ol style="list-style-type: none"> 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_001032364.2 , NP_001027536.1
RefSeq Size:	2320 bp
RefSeq ORF:	1709 bp
Locus ID:	2678
Cytogenetics:	22q11.23
Protein Families:	Protease, Transmembrane
Protein Pathways:	Arachidonic acid metabolism, Cyanoamino acid metabolism, Glutathione metabolism, Metabolic pathways, Selenoamino acid metabolism, Taurine and hypotaurine metabolism
Gene Summary:	The enzyme encoded by this gene is a type I gamma-glutamyltransferase that catalyzes the transfer of the glutamyl moiety of glutathione to a variety of amino acids and dipeptide acceptors. The enzyme is composed of a heavy chain and a light chain, which are derived from a single precursor protein. It is expressed in tissues involved in absorption and secretion and may contribute to the etiology of diabetes and other metabolic disorders. Multiple alternatively spliced variants have been identified. There are a number of related genes present on chromosomes 20 and 22, and putative pseudogenes for this gene on chromosomes 2, 13, and 22. [provided by RefSeq, Jan 2014]