

## Product datasheet for **RC211552**

### **GGT1 (NM\_001032364) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	GGT1 (NM_001032364) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GGT1
Synonyms:	CD224; D22S672; D22S732; GGT; GGT 1; GTG
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>RC211552 representing NM\_001032364  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGAAGAAGAAGTTAGTGGTCTGGCCTGCTGGCCGTGGTCTGGTCTGGTATTGTGCGCCTCTGTC  
TCTGGCTGCCCTCAGCCTCCAAGGAACCTGACAACCATGTGTACACCAGGGCTGCCGTGGCCGCGGATGC  
CAAGCAGTGCTCGAAGATTGGGAGGGATGCACTGCGGGACGGTGGCTCTGCGGTGGATGCAGCCATTGCA  
GCCCTGTGTGTGGGGCTCATGAATGCCACAGCATGGGCATCGGGGGTGGCCTTCTCCTCACCATCT  
ACAACAGCACCACAGAAAAGCTGAGGTCAACGCCCGCAGGTGGCCCCAGGCTGGCCTTTGCCAC  
CATGTTCAACAGCTCGGAGCAGTCCAGAAGGGGGGCTGTGGTGGCGGTGCCTGGGGAGATCCGAGGC  
TATGAGCTGGCACACCAGCGCATGGCGGCTGCCCTGGGCTCGCCTCTCCAGCCCAGCATCCAGCTGG  
CCC GCCAGGGCTTCCCCGTGGGCAAGGGCTTGGCGGCAGCCCTGAAAAACAAGCGGACCGTCATCGAGCA  
GCAGCCTGTCTGTGTGAGGTGTCTGCCGGGATAGAAAGGTGCTTCGGGAGGGGAGAGACTGACCCTG  
CCGCAGCTGGCTGACACCTACGAGACGCTGGCCATCGAGGGTGCCAGGCCTTACAACGGCAGCCTCA  
CGGCCAGATTGTGAAGGACATCCAGGCGGCCGGGGCATTGTGACAGCTGAGGACCTGAACAACCTACCG  
TGCTGAGCTGATCGAGCACCCGCTGAACATCAGCCTGGGAGACGTGGTGTGTACATGCCAGTGCGCCG  
CTCAGCGGGCCCGTGTGGCCCTCATCCTCAACATCCTCAAAGGGTACAACCTTCTCCCGGAGAGCGTGG  
AGAGCCCCGAGCAGAAGGGCCTGACGTACCACCGCATCGTAGAGGCTTCCGGTTTGCTACGCCAAGAG  
GACCCTGCTTGGGGACCCCAAGTTTGTGGATGTACTGAGGTGGTCCGCAACATGACCTCCGAGTTCTTC  
GCTGCCAGCTCCGGGCCAGATCTCTGACGACACCACTACCCGATCTCTACTACAAGCCGAGTTCT  
ACACGCGGATGACGGGGCAGTCTCACCTGTCTGTGTCGAGAGGACGGCAGTGTGTGTCGCCAC  
CAGCACCATCAACCTCTACTTTGGCTCCAAGGTCCGCTCCCGGTGAGCGGGATCCTGTTCAATAATGAA  
ATGGACGACTTACGCTCTCCAGCATACCAACGAGTTTGGGGTACCCCCCTCACCTGCCAATTTATCC  
AGCCAGGGAAGCAGCCGCTCTCGTCCATGTGCCGACGATCATGGTGGGCCAGGACGCCAGGTCCGGAT  
GGTGGTGGGAGCTGTGGGGCACACAGATCACCACGGCCACTGCACTGGCCATCATCTACAACCTCTGG  
TTCGGCTATGACGTGAAGCGGGCCGTGGAGGAGCCCGGCTGCACAACAGCTTCTGCCAACGTACGCA  
CAGTGGAGAGAAACATTGACCAGGCACTGACTGCAGCCCTGGAGACCCGGCACCATCACACCCAGATCGC  
GTCCACCTTCATCGCTGTGGTGAAGCCATCGTCCGACGGCTGGTGGCTGGGCAGCTGCCTCGGACTCC  
AGGAAAGCGGGGAGCCTGCCGGCTAC

ACGCGTACGCGGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

## Protein Sequence:

>RC211552 representing NM\_001032364  
Red=Cloning site Green=Tags(s)

MKKKLVLVLLAVVLLVIVGLCLWLPASKEPDNHVYTRAAVAADAKQCISKIGRDALRDGGSAYDAAIA  
ALLCVGLMNAHSMGIGGLFLTIYNSTTRKAEVINAREVAPRLAFATMFNSSEQSQKGLSVAVPGEIRG  
YELAHQRHGRLPWARLFQPSIQLARQGFVPGKGLAAALENKRTVIEQQPVLCEVFCRDRKVLREGERLTL  
PQLADTYETLAIEGAQAFYNGSLTAQIVKDIQAAGGIVTAEDLNRYRAELIEHPLNISLGDVVL YMP  
SAPLSGPVLLALILNLIKGYNFSRESVESPEQKGLTYHRIVEAFRFAYAKRTLLGDPKFVDVTEVVRNMTSEFF  
AAQLRAQISDDTTHPISYKPEFYTPDDGGTAHL SVVAEDGSAVSATSTINLYFGSKVRSVPVSGILFNNE  
MDDFSSPSITNEFGVPPSPANFIQPGKQPLSSMCPTIMVGQDQVQRMVGAAGGTQITTALAIINLW  
FGYDVKRAVEEPRLNHQLLPNVTTVERNIDQAVTAALETRHHHTQIASTFIAVVQAVIRTAGGWAAASDS  
RKGGEFAGY

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

## Chromatograms:

[https://cdn.origene.com/chromatograms/mk6218\\_c09.zip](https://cdn.origene.com/chromatograms/mk6218_c09.zip)

## Restriction Sites:

Sgfl-Mlul

**Cloning Scheme:**


**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:**

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

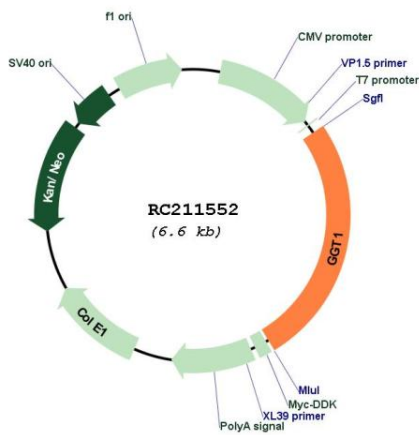
**Protein Families:** Protease, Transmembrane

**Protein Pathways:** Arachidonic acid metabolism, Cyanoamino acid metabolism, Glutathione metabolism, Metabolic pathways, Selenoamino acid metabolism, Taurine and hypotaurine metabolism

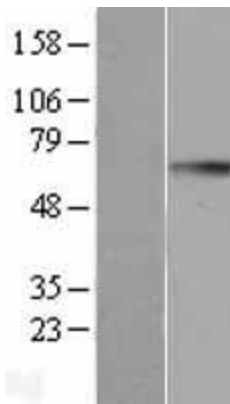
**MW:** 61.2 kDa

**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]

**Product images:**



Circular map for RC211552



Western blot validation of overexpression lysate (Cat# [LY422309]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC223689] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).