

Product datasheet for **RG223689**

GGT1 (NM_001032365) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | GGT1 (NM_001032365) 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:

>RG223689 representing NM_001032365.
 Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGGATCGCC
ATGAAGAAGAAGTTAGTGGTGTGGCCTGTGGCCGTGGTCTCTGGTGTGGTCATTGTCCGGCCTCTGT
CTCTGGTGCCTCAGCCTCAAGGAACCTGACAACCATGTGTACACCAGGGCTGCCGTGGCCCGGAT
GCCAAGCAGTGTCTGAAGATTGGGAGGGATGCACTGCGGGACGGTGGCTCTGCGGTGGATGCAGCCATT
GCAGCCCTGTTGTGTGTGGGGCTCATGAATGCCACAGCATGGGCATCGGGGGTGGCCTCTTCTCACC
ATCTACAACAGCACACACGAAAAGCTGAGGTCATCAACGCCCGCAGGTGGCCCCAGGCTGGCCTTT
GCCACCATGTTCAACAGCTCGGAGCAGTCCCAGAAGGGGGGGTGTGGTGGCGGTGCCTGGGGAGATC
CGAGGCTATGAGCTGGCACACCAGCGCATGGCGGGTGCCTGGGCTCGCTCTTCCAGCCAGCATC
CAGCTGGCCCGCAGGGCTTCCCGTGGCAAGGGCTTGGCGGCAGCCCTGGAAAACAAGCGGACCGTC
ATCGAGCAGCAGCTGTCTTGTGTGAGGTGTTCTGCCGGATAGAAGGTGCTTCGGGAGGGGGAGAGA
CTGACCCTGCCGAGCTGGCTGACACCTACGAGACGCTGGCCATCGAGGGTGCCAGGCCTTCTACAAC
GGCAGCCTCACGCCCAGATTGTGAAGGACATCCAGGCGCCGGGGCATTGTGACAGCTGAGGACCTG
AACTACTACCGTGTGAGCTGATCGAGCACCCGCTGAACATCAGCCTGGGAGACGTGGTGTGTACATG
CCCAGTGCGCCGCTCAGCGGGCCGTGCTGGCCCTCATCTCAACATCCTCAAAGGTACAACCTTCTCC
CGGGAGAGCGTGGAGAGCCCCGAGCAGAAGGGCCTGACGTACCACCGCATCGTAGAGGCTTTCGGTTT
GCCTACGCCAAGAGGACCTGCTGGGGACCCCAAGTTTGTGGATGTGACTGAGGTGGTCCGCAACATG
ACCTCCGAGTTCCTCGTGCCAGCTCCGGGCCAGATCTCTGACGACACCACTACCCGATCTCTTAC
TACAAGCCCGAGTCTACACGCCGATGACGGGGCAGTGTACCTGTCTGTGTCGCGAGAGACGGC
AGTGTGTGTCGCCACCAGCACCATCAACCTCTACTTTGGCTCCAAGGTCCGCTCCCGGTCAGCGGG
ATCTCTGTCAATAATGAATGGAGACTTCAGCTCTCCAGCATACCAACGAGTTTGGGGTACCCCCC
TCACTGCCAATTCATCCAGCCAGGAAGCAGCCGCTCTCGTCCATGTGCCCGACGATCATGGTGGGC
CAGGACGGCCAGGTCCGGATGGTGGTGGGAGCTGCTGGGGGCACACAGATCACCACGGCCACTGCACTG
GCCATCATCTACAACCTCTGGTTCGGCTATGACGTGAAGCGGGCCGTGGAGGAGCCCCGGCTGCACAAC
CAGCTTCTGCCAACGTACGACAGTGGAGAGAAACATTGACCAGGCAGTACTGCAGCCCTGGAGACC
CGGCACCATCACCCAGATCGCGTCCACCTTCATCGTGTGGTGAAGCCATCGTCCGACGGCTGGT
GGCTGGGACGCTGCTCGGACTCCAGAAAGCGGGGAGCCTGCCGGCTAC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
  
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Protein Sequence:

>Peptide sequence encoded by RG223689
 Blue=ORF Red=Cloning site Green=Tag(s)

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MKKKLVVLGLLAVVLVIVVGLCLWLPASKEPDNHVYTRAAVAADAKQCSKIGRDALRDGGSVDAAI
AALLCVGLMNAHSMGIGGLFLTIYNSTTRKAEVINAREVAPRLAFATMFSSEQSQKGLSVAVPGEI
RGYELAHQRHGRPLPWARLFQPSIQLARQGFVPGKGLAAALENKRTVIEQQPVLCVFCRDRKVLREGER
LTLPLADTYETLIEGAQAFYNGSLTAQIVKDIQAAGGIVTAEDLNNYRAELIEHPLNISLGDVLYM
PSAPLSGPVLAALILNILKGYNFSRESVESPEQGLTYHRIVEAFRFAYAKRLLGDPKFDVDTVEVRNM
TSEFFAAQLRAQISDDTTHPISYKPEFYTPDDGGTAHLSVVAEDGSVAVSATSTINLYFGSKVRSPVSG
ILFNNEMDDFSSPSITNEFGVPPSPANFIQPGKQPLSSMCPTIMVQDQVQRMVVAAGGTQITATAL
AIIYNLWFGYDVKRAVEEPRLNQLPNVTTVERNIDQAVTAALETRHHHTQIASTFIAVQAIVRTAG
GWAASDSRKGEPAGY
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSTYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNAIVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSDHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
  
```

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001032365

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_001032365.2](#), [NP_001027537.1](#)

RefSeq Size: 2364 bp

RefSeq ORF: 1709 bp

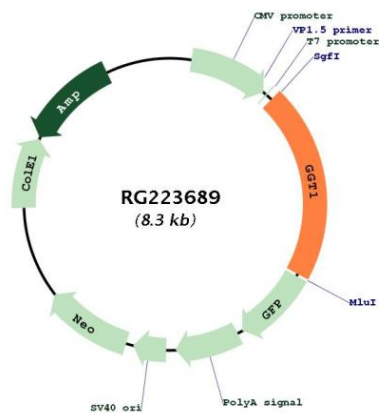
Locus ID: 2678

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: | 61.4 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 RG223689