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Product datasheet for RC223689

GGT1 (NM_001032365) Human Tagged ORF Clone

Product data:

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

ORF Nucleotide Sequence:

>RC223689 representing NM_001032365
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAAGAAGAAGTTAGTGGTGCTGGGCCTGCTGGCCGTGGTCCTGGTGCTGGTCATTGTCGGCCTCTGTC
TCTGGCTGCCCTCAGCCTCCAAGGAACCTGACAACCATGTGTACACCAGGGCTGCCGTGGCCGCGGATGC
CAAGCAGTGCTCGAAGATTGGGAGGGATGCACTGCGGGACGGTGGCTCTGCGGTGGATGCAGCCATTGCA
GCCCTGTTGTGTGTGGGGCTCATGAATGCCCACAGCATGGGCATCGGGGGTGGCCTCTTCCTCACCATCT
ACAACAGCACCACACGAAAAGCTGAGGTCATCAACGCCCGCGAGGTGGCCCCCAGGCTGGCCTTTGCCAC
CATGTTCAACAGCTCGGAGCAGTCCCAGAAGGGGGGGCTGTCGGTGGCGGTGCCTGGGGAGATCCGAGGC
TATGAGCTGGCACACCAGCGGCATGGGCGGCTGCCCTGGGCTCGCCTCTTCCAGCCCAGCATCCAGCTGG
CCCGCCAGGGCTTCCCCGTGGGCAAGGGCTTGGCGGCAGCCCTGGAAAACAAGCGGACCGTCATCGAGCA
GCAGCCTGTCTTGTGTGAGGTGTTCTGCCGGGATAGAAAGGTGCTTCGGGAGGGGGAGAGACTGACCCTG
CCGCAGCTGGCTGACACCTACGAGACGCTGGCCATCGAGGGTGCCCAGGCCTTCTACAACGGCAGCCTCA
CGGCCCAGATTGTGAAGGACATCCAGGCGGCCGGGGGCATTGTGACAGCTGAGGACCTGAACAACTACCG
TGCTGAGCTGATCGAGCACCCGCTGAACATCAGCCTGGGAGACGTGGTGCTGTACATGCCCAGTGCGCCG
CTCAGCGGGCCCGTGCTGGCCCTCATCCTCAACATCCTCAAAGGGTACAACTTCTCCCGGGAGAGCGTGG
AGAGCCCCGAGCAGAAGGGCCTGACGTACCACCGCATCGTAGAGGCTTTCCGGTTTGCCTACGCCAAGAG
GACCCTGCTTGGGGACCCCAAGTTTGTGGATGTGACTGAGGTGGTCCGCAACATGACCTCCGAGTTCTTC
GCTGCCCAGCTCCGGGCCCAGATCTCTGACGACACCACTCACCCGATCTCCTACTACAAGCCCGAGTTCT
ACACGCCGGATGACGGGGGCACTGCTCACCTGTCTGTCGTCGCAGAGGACGGCAGTGCTGTGTCCGCCAC
CAGCACCATCAACCTCTACTTTGGCTCCAAGGTCCGCTCCCCGGTCAGCGGGATCCTGTTCAATAATGAA
ATGGACGACTTCAGCTCTCCCAGCATCACCAACGAGTTTGGGGTACCCCCCTCACCTGCCAATTTCATCC
AGCCAGGGAAGCAGCCGCTCTCGTCCATGTGCCCGACGATCATGGTGGGCCAGGACGGCCAGGTCCGGAT
GGTGGTGGGAGCTGCTGGGGGCACACAGATCACCACGGCCACTGCACTGGCCATCATCTACAACCTCTGG
TTCGGCTATGACGTGAAGCGGGCCGTGGAGGAGCCCCGGCTGCACAACCAGCTTCTGCCCAACGTCACGA
CAGTGGAGAGAAACATTGACCAGGCAGTGACTGCAGCCCTGGAGACCCGGCACCATCACACCCAGATCGC
GTCCACCTTCATCGCTGTGGTGCAAGCCATCGTCCGCACGGCTGGTGGCTGGGCAGCTGCCTCGGACTCC
AGGAAAGGCGGGGAGCCTGCCGGCTAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC223689 representing NM_001032365
Red=Cloning site Green=Tags(s)

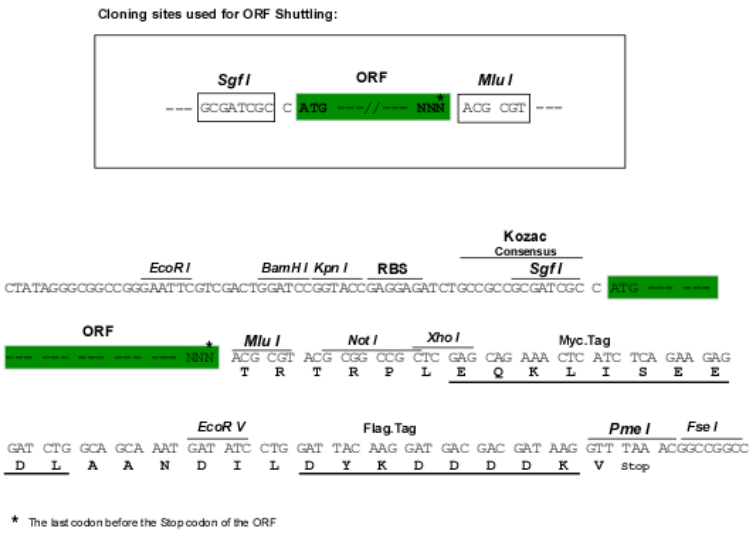
MKKKLVVLGLLAVVLVLVIVGLCLWLPSASKEPDNHVYTRAAVAADAKQCSKIGRDALRDGGSAVDAAIA
ALLCVGLMNAHSMGIGGGLFLTIYNSTTRKAEVINAREVAPRLAFATMFNSSEQSQKGGLSVAVPGEIRG
YELAHQRHGRLPWARLFQPSIQLARQGFPVGKGLAAALENKRTVIEQQPVLCEVFCRDRKVLREGERLTL
PQLADTYETLAIEGAQAFYNGSLTAQIVKDIQAAGGIVTAEDLNNYRAELIEHPLNISLGDVVLYMPSAP
LSGPVLALILNILKGYNFSRESVESPEQKGLTYHRIVEAFRFAYAKRTLLGDPKFVDVTEVVRNMTSEFF
AAQLRAQISDDTTHPISYYKPEFYTPDDGGTAHLSVVAEDGSAVSATSTINLYFGSKVRSPVSGILFNNE
MDDFSSPSITNEFGVPPSPANFIQPGKQPLSSMCPTIMVGQDGQVRMVVGAAGGTQITTATALAIIYNLW
FGYDVKRAVEEPRLHNQLLPNVTTVERNIDQAVTAALETRHHHTQIASTFIAVVQAIVRTAGGWAAASDS
RKGGEPAGY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6218_c09.zip

Restriction Sites: SgfI-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

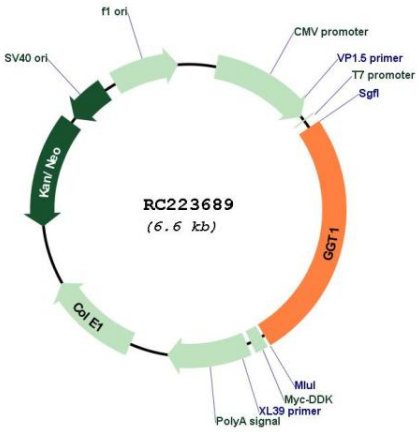
Protein Families: Protease, Transmembrane

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

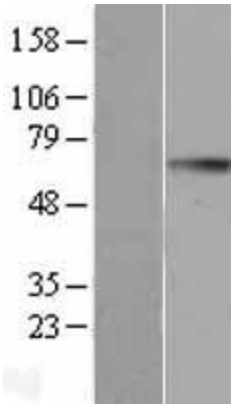
MW: 61.2 kDa

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 RC223689



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