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Product datasheet for SC108766

GGT1 (NM_005265) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GGT1 (NM_005265) Human Untagged Clone
Tag:	Tag Free
Symbol:	GGT1
Synonyms:	CD224; D22S672; D22S732; GGT; GGT 1; GTG
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>OriGene ORF within SC108766 sequence for NM_005265 edited (data generated by NextGen Sequencing)

ATGAAGAAGAAGTTAGTGGTGCTGGGCCTGCTGGCCGTGGTCCTGGTGCTGGTCATTGTC
GGCCTCTGTCTCTGGCTGCCCTCAGCCTCCAAGGAACCTGACAACCATGTGTACACCAGG
GNNNNCGTGGCCGCGGATGCCAAGCAGTGCTCGAAGATTGGGAGGGATGCACTGCGGGAC
GGTGGCTCTGCGGTGGATGCAGCCATTGCAGCCCTGTTGTGTGTGGGGCTCATGAATGCC
CACAGCATGGGCATCGGGGGTGGCCTCTTCCTCACCATCTACAACAGCACCACACGAAAA
GCTGAGGTCATCAAYGCCCGCGAGGTGGCCCCCAGGCTGGCCTTTGCCASCATGTTCAAC
AGCTCGGAGCAGTCCCAGAAGGGRGGGCTGTCGGTGGCGGTGCCTGGGGAGATCCGAGGC
TATGAGCTGGCACACCAGCGGCATGGGCGGCTGCCCTGGGCTCGCCTCTTCCAGCCCAGC
ATCCAGCTGGCCCGCCAGGGCTTCCCCGTGGGCAAGGGCTTGGCGGCAGTCCTGGAAAAC
AAGCGGACCGTCATCGAGCAGCAGCCTGTCTTGTGTGAGGTGTTCTGCCGGGATAGAAAG
GTGCTTCGGGAGGGGGAGAGACTGACCCTGCCGCRGCTGGCTGACACCTACGAGAYGCTG
GCCATCGAGGGTGCCCAGGCCTTCTACAACGGCAGCCTCAYGGCCCAGATTGTGAAGGAC
ATCCAGGCGGCYGGGGGCATTGTGACAGCTGAGGACCTGAACAACTACCGTGCTGAGCTG
ATCGAGCACCCGCTGAACATCAGCCTGGGAGACGYGGTGCTGTACATGCCCAGTGCGCSG
CTCAGCGGGCCCGTGCTGGCCCTCATCCTCAACATCCTCAAAGGGTACAACTTCTCCCGG
GAGAGCGTGGAGASCCCCGAGCAGAAGGGCCTGACGTACCACCGCATCGTAGAGGCTTTC
CGGTTTGCCTACGCCAAGAGGACCCTGCTTGGGGACCCCAAGTTTGTGGATGTGACTGAG
GTGGTCCGCAACATGACCTCYGAGTTCTTCGCTGCCCAGCTCCGGKCCCAGATCTCTGAC
SACACCACTCACCCGATCTCCTACTACAAGCCCGAGTTCTACACGCCGGATGACGGGGGC
ACTGCTCACCTGTCTGTCGTCGCAGAGGACGGCAGTGCTGTGTCCGCCACCAGCACCATC
AACCTCTACTTTGGCTCCAAGGTCYGCTCCCCGGTCAGCGGGATCCTGTTCAATAATGAA
ATGGACGACTTCAGCTCTCCCAGCATCACCAAYGAGTTTGGGGYACCCCCCTCACCTGCC
AATTTCATCCAGCCAGGGAAGCAGCCGCTCTYGTCCATGTGCCYGACGATCATGGTGGGC
CAGGACGGCCAGGTCCGGATGGTGGTGGGAGCTGCTGGGGGCACRCAGATCACCACRGMC
ACTGCACTGGCCATCATCTACAACCTCTGGTTCGGCTATGACGTGAAGMGGGCCGTGGAG
GAGCCCCGGCTGCACAACMAGCTTCTGCCCAACGTCACGACAGTGGAGAGAAACATTGAC
CAGGCAGTGACTGCAGCCCTGGAGACCCGGCACCATCACACCCAGATCGCGTCCACCTTC
ATCGCTGTGGTGCAAGCCATCGTCCGCACGGCTGGTGGCTGGGCAGCTGCCTCGGACTCC
AGGAAAGGCGGGGAGCCTGCCGGCTACTGA

Clone variation with respect to NM_005265.2

122 c=>n;123 t=>n;124 g=>n;125 c=>n;315 c=>y;350 c=>s;384 g=>r;530 c=>t;635 a=>r;656 c=>y;701 c=>y;732 c=>y;815 t=>y;839 c=>s;914 g=>s;1041 c=>y;1066 g=>k;1081 g=>s;1225 c=>y;1293 c=>y;1304 t=>y;1352 c=>y;1364 c=>y;1425 a=>r;1437 g=>r;1439 c=>m;1489 c=>m;1519 c=>m

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_005265 unedited
NCGTGTCAAATTTGTATACGACTCACTATAGGCGGCCGCGATTCGGCACGAGGCCTGCAC
CCTGTGCAGATGCCTCCCACTGTCCGCCGGGGCTGCTGGGCACGCCCTGGCTGGTCTCTT
GGACTAGCGGGTGCAGCCCAGAACTGTCTTCTGAGGAAGAGGTGCTCTCCTGGGCCCCCA
CTGTCCCCAGGCCTCAGCAGCAAGGCAAGTGAGGTGCTGCCGTCATCCAGGCTGGACAGT
TCAGTGATTTGCCTGAGGCCCCACAGCAGAGTTCAACTGGAGACAGAGAAACCAGCTAGA
GGCAGAGGGAGGTAACACGGAGTCCCCCAGAAAGGTCTGGGCTGCGCGTGCTTCAGGTAA
CCTCCCTTGACCTTCAGGAGAACGAGAAGGCTGCCTGATCAGAGAGTCCCTGAAGAAGAT
TCTGTGGCTACAGGCTTCAGCAGAGTGTGAGGGAGACCCCGGTTATTTCCTCAGCTATTT
CCACCAAATCCTCCTGTCTTTCGTGGCCAACACCCCAGGCAAGGCTTGGGGCCCCCGTCT
GCTGCTGGACGCAGAGCCATGAAGAAGAAGTTAGTGGTGCTGGGCCTGCTGGCCGTGGTC
CTGGTGCTGGTCATTGTCGGCCTCTGTCTCTGGCTGCCCTCAGCCTCCAAGGAACCTGAC
AACCATGTGTACACCAGGGCTGCCGTGGCCGCGGATGCCAAGCAGTGCTCGAAGATTGGG
AGGGATGCACTGCGGGACGGTGGCTCTGCGGTGGATGCAGCCATTGCAGCCCTGGTGTGT
GTGGNGCTCATGAATGCCCACAGCATGGGCATCGGNGGTGGCCTCTTTCCTCACCATCTA
CACAGCACCACACGAAAAAGCTGAGTCATCAACGCCCGCGAGGTGGCCCCCAGNCTGGCC
TTTGCCACCAA

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_005265 unedited
GGCCAGGAAGGCCCCTGGNGNNCCTGGCACAGTGGCCTCATTTATTGTGCTGCTCTGCTG
CTCACAGGGGAAGCCGGTCCCCCANAGTCCCCTTCCTGGTCCTGGTGAGTATCTTGTCCC
TGGATTGCTTGTCAGCCTTGTCCTCCTGGAGCACTCAGTAGCCGGCAGGCTCCCCGCCTT
TCCTGGAGTCCGAGGCAGCTGCCCAGCCACCAGCCGTGCGGACGATGGCTTGCACCACAG
CGATGAAGGTGGACGCGATCTGGGTGTGATGGTGCCGGGTCTCCAGGGCTGCAGTCACTG
CCTGGTCAATGTTTCTCTCCACTGTCGTGACGTTGGGCAGAAGCTGGTTGTGCAGCCGGG
GCTCCTCCACGGCCCGCTTCACGTCATAGCCGAACCAGAGGTTGTAGATGATGGCCAGTG
CAGTGGCCGTGGTGATCTGTGTGCCCCCAGCAGCTCCCACCACCATCCGGACCTGGCCGT
CCTGGCCCACCATGATCGTCGGGCACATGGACGAGAGCGGCTGCTTCCCTGGCTGGATGA
AATTGGCAGGTGAGGGGGGTACCCCAAACTCGTTGGTGATGCTGGGAGAGCTGAAGTCGT
CCATTTCATTATTGAACAGGATCCCGCTGACCGGNGAGCGGACCTTGGAGCCAAAGTANA
GGTTGATGGTGCTGGTGGCGGACACAGCACTGCCGTCCTCTGCGACGACAGACAGGTGAG
CAGTGCCCCCGTCATCCCGCGTGTAGAACTCGGGCTTGTANTANGAGATCGGGTGAGTGG
TGTCGTCAGAGATCTGGGCCCGGGNAGCTGGCAGCGAAGAACTCGNAGGTCATGTTGCGG
ACCACCTCAGTCCATCCACAAACTTGGGGTCCCAAGCAGGTTCTCTTGCCGTAGGCAACC
GGAAACCTCTACATGCGGTGGACCTCAGCCCTTTGTTCGGGCTTCCCGCCCTCCGGAAAA
TTGCCCCTTTAGATGTGAGGATAGGCCNCACGCCCTCTGACGGCCCTGGCATGTCCA

Restriction Sites: NotI-NotI

ACCN: NM_005265

Insert Size: 2870 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_005265.2, NP_005256.2
RefSeq Size:	2431 bp
RefSeq ORF:	1710 bp
Locus ID:	2678
Cytogenetics:	22q11.23
Domains:	G_glu_transpept
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] Transcript Variant: This variant (1) represents the longest transcript. Variants 1, 3, 4, and 5 all encode the same protein.