

Product datasheet for **RG209946**

GGT5 (NM_004121) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GGT5 (NM_004121) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GGT5
Synonyms:	GGL; GGT-REL; GGT 5; GGTLA1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG209946 representing NM_004121
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCCCGGGCTACGGGGCCACGGTCAGCCTAGTCTGTGGTCTGGGGCTGGCGCTGGCTGTCAATTG
 TGCTGGCTGTGGTCTCTCTCGACACCAGGCCCATGTGGCCCCAGGCCTTTGCCACGCTGCTGTTGC
 CGCCGACTCCAAGGTCTGCTCGGATATTGGACGAGCCATCCTCCAGCAGCAGGGCTCACCCGTGGATGCC
 ACCATCGCGGCTCTGGTCTGCACCAGCGTCGTAACCCTCAGAGCATGGGCCTGGGCGGAGGGGTGATCT
 TCACCATCTACAATGTGACAACAGGAAGGTGGAGGTCAATGCCCGGAGACGGTCCGGCCAGCCA
 CGCCCCGAGCCTGCTGGACCACTGTGCACAGGCTCTGCCACTGGGCACAGGGGCCAGTGGATCGGGGTG
 CCCGGGGAGCTCCGTGGCTATGCCGAGGGCCACCGCCGCATGGCCGCTGCCCTGGGCGCAGCTGTTCC
 AGCCACCATCGCGCTGCTCCGAGGGGGCATGTGGTGGCCCTGTCTCAGCCGTTTCTGCACAACAG
 CATCTGCGGCCCTCCTTGCAGGCGTCAACCCTGCGCCAGCTCTTCTCAACGGGACAGAACCCCTGAGG
 CCTCAGGACCCACTCCCATGGCCTGCACTGGCCACCACCCTGGAGACCGTGGCCACAGAGGGCGTGGAGG
 TCTTCTACACGGGGAGGCTGGGCCAGATGCTGGTGGAGGACATTGCCAAGGAAGGGAGCCAGCTGACGCT
 GCAGGACCTGGCCAAGTTCAGCCCCGAGGTGGTGGATGCCCTGGAGGTGCCCTGGGGGACTATACCCTG
 TACTCACCACCGCCGCTGCAGGGGGTGCATTCTCAGCTTTATCCTCAACGTGCTAAGAGGGTTCAACT
 TCTCAACAGAGTCTATGGCCAGGCTGAAGGGAGGGTGAACGTGTACCACCACCTGTAGAGACGCTCAA
 GTTTGCCAAGGGGAGAGGTGGAGGTGGGGGACCCTCGAAGCCACCCGAAGTCCAGAATGCCTCCCGG
 GACCTGTGGGGGAGACCCTGGCCAGCTCATCCGCCAACAGATCGATGGCCGGGGGACCACCAGCTCA
 GCCACTACAGCTTGGCCGAGCCTGGGGCCACGGGACAGGCACGTCATGCTGTGTGTGCTGGGGGAGGA
 TGGCAGCGCCGTGGCTGCCACCAGCACCATCAACACACCCTTTGGAGCGATGGTGTATTACCACCGGACA
 GGCATCATCTCAACAACGAGCTCCTGGACTTATGCGAGCGATGCCCCGGGGTTCGGCCACCACCCCT
 CACCTGCAGTGAGTGGAGACAGGGTGGGTGGAGCTCCCGAAGGTGCTGGCCCCAGTTCAGGCGAGCG
 TTCCCATCCTCCATGGTGCCTCCATCTTGATCAACAAAGCCAGGGTGAAGCTAGTGATTGGCGGG
 GCTGGCGGGGAGCTCATCATCTCTGCTGTGGCCAGGCCATCATGAGCAAGCTGTGGCTTGGCTTGGACC
 TGAGAGCGGCCATTGCAGCCCCATCCTGCATGTCAACAGCAAGGGCTGTGTGGAGTACGAGCCAACTT
 CAGCCAGGAGGTGCAGAGGGGACTCCAAGACCGTGGCCAGAACCAGACCAGAGGCCCTTCTTCTGAAC
 GTGGTCCAGGCTGTGCCAGGAGGGGGCTGTGTGTACGCCGCTCTCGGACCTGAGGAAGAGTGGGGAGG
 CCGCAGGCTAC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG209946 representing NM_004121
 Red=Cloning site Green=Tags(s)

MARGYGATVSLVLLGLGLALAVIVLAVVLSRHQAPCPQAFHAHAVAADS~~SKVCS~~DIGRAILQQQSPVDA
 TIAALVCTSVVNPQSMGLGGVIFTIYNVTTGKVEVINARETVPASHAPSLLDQCAQALPLGTGAQWIGV
 PGEIRGYAEARRHRGRLPWAQLFQPTIALLRGGHVVPVLSRFLHNSILRPSLQASTLRQLFFNGTEPLR
 PQDPLPWPALATTLETVATEGVEVFYTGRLGQMLVEDIAKEGSQLTLQDLAKFQPEVVDALVPLGDYTL
 YSPPPPAGGAILSFILNVLRGFNFSTESMARPEGRVNVYHHLVETLKFAGQQRWRLGDPRSHPKLQNASR
 DLLGETLAQLIRQQIDGRGDHQLSHYSLAEAWGHGTGSHVSVLGEDGSAVAATSTINTPFAMVYSPRT
 GIILNNEILLDCERCPRGSGTTPSPAVSGDRVGGAPGRCPWPVPGERSPSSMVPSILINKAQGSKLVIGG
 AGGELIISAVAQAIMSKLWLGFDLRAAIAAPILHVNSKGCVEYEPNFSQEVQRGLQDRGQNTQRPFFLN
 VVQAVSQEGACYAVS~~DLR~~KS~~GE~~AAGY

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_004121

ORF Size: 1758 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_004121.1](#), [NP_004112.1](#)

RefSeq Size: 2414 bp

RefSeq ORF: 1761 bp

Locus ID: 2687

UniProt ID: [P36269](#)

Cytogenetics: 22q11.23

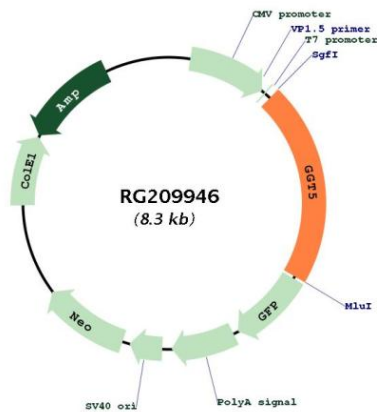
Domains: G_glu_transpept

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: This gene is a member of the gamma-glutamyl transpeptidase gene family, and some reports indicate that it is capable of cleaving the gamma-glutamyl moiety of glutathione. The protein encoded by this gene is synthesized as a single, catalytically-inactive polypeptide, that is processed post-transcriptionally to form a heavy and light subunit, with the catalytic activity contained within the small subunit. The encoded enzyme is able to convert leukotriene C4 to leukotriene D4, but appears to have distinct substrate specificity compared to gamma-glutamyl transpeptidase. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Oct 2014]

Product images:



Circular map for RG209946