

Product datasheet for **RG218823**

GGT5 (NM_001099781) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GGT5 (NM_001099781) 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:

>RG218823 representing NM_001099781
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCCCGGGCTACGGGGCCACGGTCAGCCTAGTCTGTGGTCTGGGGCTGGCGCTGGCTGTCAATTG
 TGCTGGCTGTGGTCTCTCTCGACACCAGGCCCATGTGGCCCCAGGCCTTTGCCACGCTGCTGTTGC
 CGCCGACTCCAAGGTCTGCTCGGATATTGGACGAGCCATCCTCCAGCAGCAGGGCTCACCCGTGGATGCC
 ACCATCGCGGCTCTGGTCTGCACCAGCGTCGTAACCCTCAGAGCATGGGCCTGGGCGGAGGGGTATCT
 TCACCATCTACAATGTGACAACAGGAAGGTGGAGGTCAATGCCCGGAGACGGTCCGGCCAGCCA
 CGCCCCGAGCCTGCTGGACCAGTGTGCACAGGCTCTGCCACTGGGCACAGGGGCCAGTGGATCGGGGTG
 CCCGGGGAGCTCCGTGGCTATGCCGAGGCCACCGCCCATGGCCGCTGCCCTGGGCGCAGCTGTTCC
 AGCCACCATCGCGCTGCTCCGAGGGGGCATGTGGTGGCCCTGTCTCAGCCGTTTCTGCACAACAG
 CATCTGCGGCCCTCCTTGCAGGCGTCAACCCTGCGCCAGCTCTTCTCAACGGGACAGAACCCTGAGG
 CCTCAGGACCCACTCCCATGGCCTGCACTGGCCACCACCCTGGAGACCGTGGCCACAGAGGGCGTGGAGG
 TCTTCTACACGGGGAGGCTGGGCCAGATGCTGGTGGAGGACATTGCCAAGGAAGGGAGCCAGCTGACGCT
 GCAGGACCTGGCCAAGTTCAGCCCGAGGTGGTGGATGCCCTGGAGGTGCCCTGGGGGACTATACCCTG
 TACTACCACCGCCGCTGCAGGGGGTGCATTCTCAGCTTTATCCTCAACGTGCTAAGAGGGTTCAACT
 TCTCAACAGAGTCTATGGCCAGGCTGAAGGGAGGGTGAACGTGTACCACCACCTGTAGAGACGCTCAA
 GTTTGCCAAGGGGAGAGGTGGAGGTGGGGGACCCTCGAAGCCACCCGAAGTCCAGAATGCCTCCCGG
 GACCTGTGGGGGAGACCCTGGCCAGCTCATCCGCCAACAGATCGATGGCCGGGGGACCACAGCTCA
 GCCACTACAGCTTGGCCGAGGCTGGGGCCACGGGACAGGCACGTCATGCTGTGTGTGTGGGGGAGGA
 TGGCAGCGCCGTGGCTGCCACCAGCACCATCAACACACCCTTTGGAGCGATGGTGTATTACCACCGACA
 GGCATCATCTCAACAACGAGCTCCTGGACTTATGCGAGCGATGCCCCGGGGTTCGGCCACCACCCCT
 CACCTGCAGTGTGGAGACAGGGTGGGTGGAGCTCCCGAAGGTGCTGGCCCCAGTTCAGGCGAGCG
 TTCCCCATCTCCATGGTGCCTCCATCTTGATCAACAAAGCCAGGGTGAAGCTAGTGATTGGCGGG
 GCTGGCGGGGAGCTCATCATCTCTGCTGTGGCCAGGCCATCATGAGCAAGCTGTGGCTTGGCTTGGACC
 TGAGAGCGGCCATTGCAGCCCCATCCTGCATGTCAACAGCAAGGGCTGTGTGGAGTACGAGCCAACTT
 CAGCCAGGAGGTGCAGAGGGGACTCCAAGACCGTGGCCAGAACCAGACCAGAGGCCCTTCTTCTGAAC
 GTGGTCCAGGCTGTGCCAGGAGGGGGCTGTGTGTACGCCGCTCTCGGACCTGAGGAAGAGTGGGGAGG
 CCGCAGGCTAC

ACGCGTACGCGGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG218823 representing NM_001099781
 Red=Cloning site Green=Tags(s)

MARGYGATVSLVLLGLGLALAVIVLAVVLSRHQAPCPQAFHAHAVAADS~~SKVCS~~DIGRAILQQQSPVDA
 TIAALVCTSVVNPQSMGLGGVIFTIYNVTTGKVEVINARETVPASHAPSLLDQCAQALPLGTGAQWIGV
 PGEIRGYAEHRRHGRLPWAQLFQPTIALLRGGHVVPVLSRFLHNSILRPSLQASTLRQLFFNGTEPLR
 PQDPLPWPALATTLETVATEGVEVFYTGRLGQMLVEDIAKEGSQLTLQDLAKFQPEVVDALVPLGDYTL
 YSPPPPAGGAILSFILNVLRGFNFSTESMARPEGRVNVYHHLVETLKFQKQWRWLDPRSHPKLQNASR
 DLLGETLAQLIRQQIDGRGDHQLSHYSLAEAWGHGTGSHVSVLGEDGSAVAATSTINTPFAMVYSPRT
 GIILNNEILLDCERCPRGSGTTPSPAVSGDRVGGAPGRCPWPVPGERSPSSMVPSILINKAQGSKLVIGG
 AGGELIISAVAQAIMSKLWLGFDLRAAIAAPILHVNSKGCVEYEPNFSQEVQRGLQDRGQNTQRPFFLN
 VVQAVSQEGACYAVS~~DLR~~KS~~GE~~AAGY

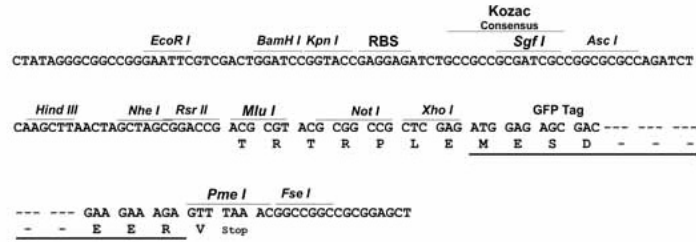
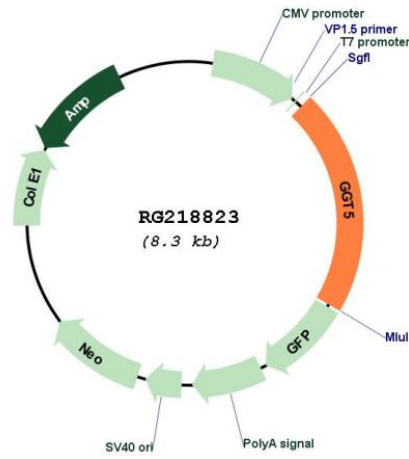
TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:


Plasmid Map:


ACCN: NM_001099781
 ORF Size: 1761 bp

OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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_001099781.2 , NP_001093251.1
RefSeq Size:	2500 bp
RefSeq ORF:	1764 bp
Locus ID:	2687
UniProt ID:	P36269
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

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]