

## Product datasheet for **RG202807**

### Glutathione S Transferase theta 1 (GSTT1) (NM\_000853) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Glutathione S Transferase theta 1 (GSTT1) (NM\_000853) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Glutathione S Transferase theta 1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG202807 representing NM\_000853  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGGCCTGGAGCTGTACCTGGACCTGCTGTCCCAGCCCTGCCGCGCTGTTTACATCTTTGCCAAGAAGA  
 ACGACATTCCTTCGAGCTGCGCATCGTGGATCTGATTAAGGTGAGCACTTAAGCGATGCCTGTGCCCA  
 GGTGAACCCCTCAAGAAGGTGCCAGCCTGAAGGACGGGACTTCACCTTGACGGAGAGTGTGGCCATC  
 CTGCTCTACCTGACGCGCAAATAAAGGTCCCTGACTACTGGTACCCTCAGGACCTGCAGGCCCTGGCC  
 GTGTGGATGAGTACCTGGCATGGCAGCACGACTCTGCCGAGAAGCTGCCTCCGGCCTTGTGGCATAA  
 GGTGATGTTCCCTGTTTTCTGGGTGAGCCAGTATCTCCCAGACACTGGCAGCCACCCTGGCAGAGTTG  
 GATGTGACCCTGCAGTTGCTCGAGGACAAGTTCCTCCAGAACAAGGCCTTCTTACTGGTCTCACATCT  
 CCTTAGCTGACCTCGTAGCCATCACGGAGCTGATGCATCCCGTGGGTGCTGGCTGCCAAGCTTTCGAAGG  
 CCGACCCAAGCTGGCCACATGGCGGCAGCGCTGGAGGCAGCAGTGGGGAGGACCTCTCCAGGAGGCC  
 CATGAGGTATTCTGAAGCCAAGGACTTCCCACCTGCAGACCCACCATAAACAGAAGCTGATGCCCT  
 GGGTGCTGGCCATGATCCGG

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:** >RG202807 representing NM\_000853  
 Red=Cloning site Green=Tags(s)

MGLELYLDLLSQPCRAVYIFAKKNDIPFELRIVDLIKGQHLSDACAQVNPLKVPALKDGFDTLTSVAI  
 LLYLTRKYKVPDYWYPQDLQARARVDEYLAWQHTTLRRSCLRALWHKVMFPVFLGEPVSPQTLAATLAE  
 DVTLQLLEDKFLQNKAFLTGPHISLADLVAITELMHPVAGCQVFEGRPKLATWRQRVEAAVGEDLFQEA  
 HEVILKAKDFPPADPTIKQLMPWVLAMIR

**TRTRPLE** - GFP Tag - V

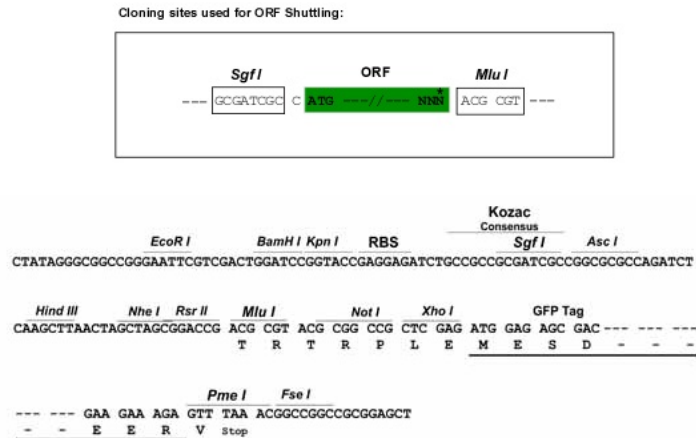


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Chromatograms: [https://cdn.origene.com/chromatograms/ja1946\\_a09.zip](https://cdn.origene.com/chromatograms/ja1946_a09.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_000853

ORF Size: 720 bp

OTI Disclaimer: 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](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_000853.1](#), [NP\\_000844.1](#)

**RefSeq Size:** 1004 bp

**RefSeq ORF:** 723 bp

**Locus ID:** 2952

**UniProt ID:** [P30711](#)

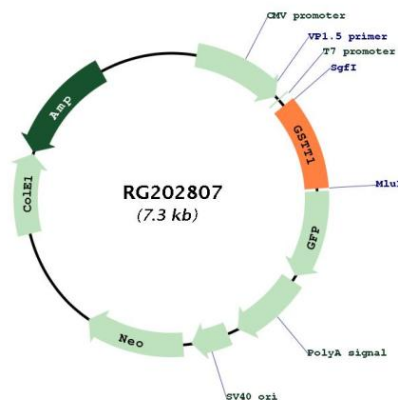
**Cytogenetics:** 22q11.23

**Domains:** GST\_N, GST\_C

**Protein Pathways:** Drug metabolism - cytochrome P450, Glutathione metabolism, Metabolism of xenobiotics by cytochrome P450

**Gene Summary:** The protein encoded by this gene, glutathione S-transferase (GST) theta 1 (GSTT1), is a member of a superfamily of proteins that catalyze the conjugation of reduced glutathione to a variety of electrophilic and hydrophobic compounds. Human GSTs can be divided into five main classes: alpha, mu, pi, theta, and zeta. The theta class includes GSTT1, GSTT2, and GSTT2B. GSTT1 and GSTT2/GSTT2B share 55% amino acid sequence identity and may play a role in human carcinogenesis. The GSTT1 gene is haplotype-specific and is absent from 38% of the population. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, Sep 2015]

## Product images:



Circular map for RG202807