

## Product datasheet for **RG235649**

### Glutathione S Transferase theta 1 (GSTT1) (NM\_001293813) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Glutathione S Transferase theta 1 (GSTT1) (NM\_001293813) 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:** >RG235649 representing NM\_001293813.  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGGCCTGGAGCTGTACCTGGACCTGTGTCCCAGCCCTGCCGCGCTGTTTACATCTTTGCCAAGAAG
AACGACATTCCTTCGAGCTGCGCATCGTGGATCTGATTAAGGTGAGCACTTAAGCGATGCCTTTGCC
CAGGTGAACCCCTCAAGAAGGTGCCAGCCTTGAAGGACGGGGACTTCACCTTGACGGAGAGCCCGTGG
GTGCTGGCTGCCAAGTCTTGAAGGCCGACCAAGCTGGCCACATGGCGGCAGCGCTGGAGGCAGCAG
TGGGGGAGGACCTCTCCAGGAGGCCCATGAGGTCATTC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```

**Protein Sequence:** >Peptide sequence encoded by RG235649  
 Blue=ORF Red=Cloning site Green=Tag(s)

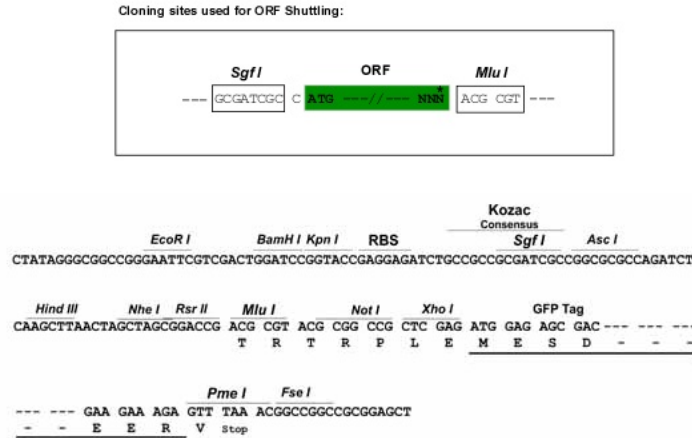
```
MGLELYDLLSQPCRAVYIFAKKNDIPFELRIVDLIKQHLSDAFAQVNPLKVPALKDGDFTLTESPW
VLAAKSSKADPSWPHGGSARQQWGRSSRRPMSF
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGYTNRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPE
SVIFTDKIIRSNAIVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**



**ACCN:** NM\_001293813

**ORF Size:** 315 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).

**RefSeq:** [NM\\_001293813.1](#), [NP\\_001280742.1](#)

**RefSeq Size:** 781 bp

**RefSeq ORF:** 318 bp

**Locus ID:** 2952

**Cytogenetics:** 22q11.23

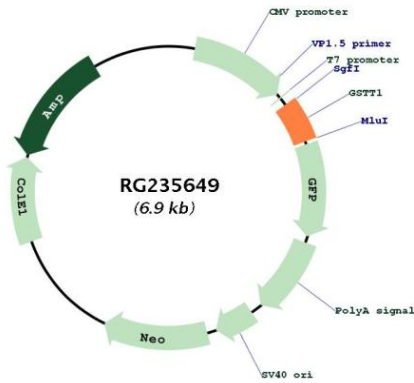
**Protein Pathways:** Drug metabolism - cytochrome P450, Glutathione metabolism, Metabolism of xenobiotics by cytochrome P450

**MW:** 12.3 kDa

**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 RG235649