

Product datasheet for SC319671

OriGene Technologies, Inc.

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Glutathione S Transferase theta 1 (GSTT1) (NM 000853) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Glutathione S Transferase theta 1 (GSTT1) (NM_000853) Human Untagged Clone

Tag: Tag Free

Symbol: Glutathione S Transferase theta 1

Mammalian Cell

Selection:

None

Vector: pCMV6-XL5

E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_000853.1

GACTCCCTCTGGTTTCCGGTCAGGTCGGTCCCCACTATGGGCCTGGAGCTGTACCT GGACCTGCTGTCCCAGCCCTGCCGCGCTGTTTACATCTTTGCCAAGAAGAACGACATTCC CTTCGAGCTGCGCATCGTGGATCTGATTAAAGGTCAGCACTTAAGCGATGCCTGTGCCCA GGTGAACCCCCTCAAGAAGGTGCCAGCCTTGAAGGACGGGGACTTCACCTTGACGGAGAG TGTGGCCATCCTGCTCTACCTGACGCGCAAATATAAGGTCCCTGACTACTGGTACCCTCA GGACCTGCAGGCCCGTGCCCGTGTGGATGAGTACCTGGCATGGCAGCACACGACTCTGCG GAGAAGCTGCCTCCGGGCCTTGTGGCATAAGGTGATGTTCCCTGTTTTCCTGGGTGAGCC AGTATCTCCCCAGACACTGGCAGCCACCCTGGCAGAGTTGGATGTGACCCTGCAGTTGCT CGAGGACAAGTTCCTCCAGAACAAGGCCTTCCTTACTGGTCCTCACATCTCCTTAGCTGA CCGACCCAAGCTGGCCACATGGCGGCAGCGCGTGGAGGCAGCAGTGGGGGAGGACCTCTT CCAGGAGGCCCATGAGGTCATTCTGAAGGCCAAGGACTTCCCACCTGCAGACCCCACCAT AAAACAGAAGCTGATGCCCTGGGTGCTGGCCATGATCCGGTGAGCTGGGAAGCCTCACCC TTGCACCGTCCTCAGCAGTCCACAAAGCATTTTCATTTCTAATGGCCCATGGGAGCCAGG CCCAGAAAGCAGGAATGGCTTGCTTAAGACTTGCCCAAGTCCCAGAGCACCTCACCTCCC GAAGCCACCATCCCCACCTGTCTTCCACAGCCGCCTGAAAGCCACAATGAGAATGATGC ACACTGAGGCCTTGTGTCCTTTAATCACTGCATTTCATTTTGATTTTGGATAATAAACCT

Restriction Sites: Please inquire **ACCN:** NM 000853





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 customercom 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. <u>More info</u>

OTI Annotation:

This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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: <u>NM 000853.1, NP 000844.1</u>

 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]

Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (a).