

## Product datasheet for **SC108186**

### **GSTM4 (NM\_000850) Human Untagged Clone**

#### Product data:

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|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | GSTM4 (NM_000850) Human Untagged Clone  |
| Tag:                      | Tag Free  |
| Symbol:                   | GSTM4   |
| Synonyms:                 | GSTM4-4; GTM4   |
| Mammalian Cell Selection: | None  |
| Vector:                   | <u><a href="#">pCMV6-XL5</a></u>  |
| E. coli Selection:        | Ampicillin (100 ug/mL)  |
| Fully Sequenced ORF:      | >OriGene ORF within SC108186 sequence for NM_000850 edited (data generated by NextGen Sequencing)<br>ATGTCCATGACACTGGGGTACTGGGACATCCGCGGGCTGGCCACGCCATCCGCCTGCTC<br>CTGGAATACACAGACTCAAGCTACGAGGAAAAGAAGTATACGATGGGGGACGCTCCTGAC<br>TATGACAGAAGCCAGTGGCTGAATGAAAAATTCAGCTGGGCCTGGACTTCCCAATCTG<br>CCCTACTTGATTGATGGGGCTCACAAAGATCACCCAGAGCAACGCCATCCTGTGCTACATT<br>GCCCGCAAGCACAACTGTGTGGGGAGACAGAAGAGGAGAAGATTCGTGTGGACATTTTG<br>GAGAACCAGGCTATGGACGTCTCCAATCAGCTGGCCAGAGTCTGCTACAGCCCTGACTTT<br>GAGAACTGAAGCCAGAATACTTGGAGGAACTTCTACAATGATGCAGCACTTCTCACAG<br>TTCCTGGGGAAGAGGCCATGGTTTGTGGAGACAAGATCACCTTTGTAGATTTCCCTCGCC<br>TATGATGCCTTGACCTCACCGTATATTTGAGCCCAACTGCTTGGACGCCTTCCCAAAT<br>CTGAAGGACTTCACTCCCGCTTTGAGGGCTTGGAGAAGATCTCTGCCTACATGAAGTCC<br>AGCCGCTTCTCCAAAACCTCTGTACACAAGGGTGGCTGTCTGGGGCAACAAGTAA<br><br>Clone variation with respect to NM_000850.4<br>534 t=>c |



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| <b>5' Read Nucleotide Sequence:</b> | <p>&gt;OriGene 5' read for NM_000850 unedited<br/>           ATACGACTCACTATAGGGCGGCCGCAATTCGGCACGAGGCCAGCATCATGTCCATGACA<br/>           CTGGGGTACTGGGACATCCGCGGGCTGGCCACGCCATCCGCCTGCTCCTGGAATACACA<br/>           GACTCAAGCTACGAGGAAAAGAAGTATACGATGGGGGACGCTCCTGACTATGACAGAAGC<br/>           CAGTGGCTGAATGAAAAATTCAGCTGGGCCTGGACTTTCCCAATCTGCCCTACTTGATT<br/>           GATGGGGCTCACAAAGATCACCCAGAGCAACGCCATCCTGTGTACATTGCCCGCAAGCAC<br/>           AACCTGTGTGGGAGACAGAAGAGGAGAAGATTCTGTGGACATTTGGAGAACCAGGCT<br/>           ATGGACGTCTCCAATCAGCTGGCCAGAGTCTGCTACAGCCCTGACTTTGAGAAACTGAAG<br/>           CCAGAATACTTGGAGAACTTCCACAATGATGCAGCACTTCTCACAGTTCTGGGGAAG<br/>           AGGCCATGGTTTGTGGAGACAAGATCACCTTTGTAGATTTCTCGCCTATGATGTCCTT<br/>           GACCTCCACCGTATATTTGAGCCCAACTGCTTGGACGCCTTCCCAAATCTGAAGGACTTC<br/>           ATCTCCCGCTTTGAGGGCTTGGAGAAGATCTCTGCCTACATGAAGTCCAGCCGCTTCTC<br/>           CAAAACCTCTGTACACAAGGTGGGCTGTCTGGNGCAACAAGTAATGCCTTGAAGGCCA<br/>           GGAGTGGGAGTGAAGAGCCATACTCAGCCTGCTGCCAGGCTGTGCAGCGCAGCTGGA<br/>           CTCTGCATNCCAGCACCTGCCTNNCTCGTCTTTCTNCTGGTTATTTCCATCTTACCCCC<br/>           AGACTTATTGGGCTCTTNACTTCCNCTAACCCGTGCCATGCAGCCCTTTGAAGCTAG<br/>           CTACCCACTTTCTTATGAACATCCNCTNCCNACTACCTTNCCTGACTAAAGCAGGCTG<br/>           ACCTTCTNCTGTTAGGNNTGATCTGCTTTGAGGCCTNCN</p> |
| <b>3' Read Nucleotide Sequence:</b> | <p>&gt;OriGene 3' read for NM_000850 unedited<br/>           CTTTTTTTCGACATGTGGCCTAAGGCAGGGGCCATGCTGCAGGAGCACGGCCTGTAAC<br/>           CCTCAATGCTGTATGGGCACGGGACACNTAGGCTGAGCTCCACAGGCGAGGGGCCAGG<br/>           TANGCCCTTCAAAGCAGATACAACCACTAACAGGAAGGAAGGTCANGCTGGCTTTANTGC<br/>           AGGGAAGGGTANTGTTGGGAGGGGATGTTTCATGAAGGAAAGTGGGTAGCTGATTGTNGG<br/>           AGGGCCTNCATGGGACANGGGTTTACGGGAAGTAAAAGGCCCAATAAAGTCTTGGGGGT<br/>           AAAGATGGGAATAAACAGGAGAAAGGAACGAGGAGGAGGCTGGGATGCACAGTCCAN<br/>           CTGCGCTGCACAGGCTGGGCANACGCTGAGTATGGGCTCCTCACTCCCACCTCTGGCC<br/>           TTCAAGGCATTACTTGTGCCCCANACAGCCACCTTGCCTACAGAGGCTCCCGGATCAA<br/>           TCGCCTGGACTTCATTTACGCACAAATTTCTCCAAGCCCTCAAAGCGGGAGATCAAATC<br/>           CTTTACATTCGGGAAAGCCTCTCACCCATTGGGCTCAAATCTCCGGTGGAGGGAACGAGC<br/>           TTATACGCACGACCTCTCCATAGCGGTCTTCCCTCAACCAACCTCGCCTTTTCCCTAGC<br/>           AACTTGAACCGCTCTCTCACTGCCAGAATTTCCCCCAATCGTCTCCGTTCCCTCTTCT<br/>           ACCCCCTTCCCTACCCCACTTCTCGCTACTCATTGTACAACCTCCTCTCTGCTTCC<br/>           TTCATAGTTCCCCCTTACTCCTTCTTCCCTCTTTTCCCCCACCTTCTTACTCCTC<br/>           CTGCCATCCTCCCCTTTGCCCTTCCCTCACTCCCATTCTCCCGTCTTCTTATTCT<br/>           TTCTCCCGCTTCTCGTTGCTACTCCCTGTTCTCCACACACCCCGTTATCTCGCTAC<br/>           CCTCTATTTCTCTCTCCCGCCTTCCGCCCTCCTTCACTCTCTTCTTTT</p>   |
| <b>Restriction Sites:</b>           | NotI-NotI   |
| <b>ACCN:</b>                        | NM_000850   |
| <b>Insert Size:</b>                 | 1240 bp   |
| <b>OTI Disclaimer:</b>              | Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).  |
| <b>Components:</b>                  | 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).  |

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| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>   |
| <b>RefSeq:</b>                | <a href="#">NM_000850.3</a> , <a href="#">NP_000841.1</a>   |
| <b>RefSeq Size:</b>           | 1436 bp   |
| <b>RefSeq ORF:</b>            | 657 bp  |
| <b>Locus ID:</b>              | 2948  |
| <b>UniProt ID:</b>            | <a href="#">Q03013</a>  |
| <b>Cytogenetics:</b>          | 1p13.3  |
| <b>Domains:</b>               | GST_N, GST_C  |
| <b>Protein Pathways:</b>      | Drug metabolism - cytochrome P450, Glutathione metabolism, Metabolism of xenobiotics by cytochrome P450   |
| <b>Gene Summary:</b>          | <p>Cytosolic and membrane-bound forms of glutathione S-transferase are encoded by two distinct supergene families. At present, eight distinct classes of the soluble cytoplasmic mammalian glutathione S-transferases have been identified: alpha, kappa, mu, omega, pi, sigma, theta and zeta. This gene encodes a glutathione S-transferase that belongs to the mu class. The mu class of enzymes functions in the detoxification of electrophilic compounds, including carcinogens, therapeutic drugs, environmental toxins and products of oxidative stress, by conjugation with glutathione. The genes encoding the mu class of enzymes are organized in a gene cluster on chromosome 1p13.3 and are known to be highly polymorphic. These genetic variations can change an individual's susceptibility to carcinogens and toxins as well as affect the toxicity and efficacy of certain drugs. Diversification of these genes has occurred in regions encoding substrate-binding domains, as well as in tissue expression patterns, to accommodate an increasing number of foreign compounds. Multiple transcript variants, each encoding a distinct protein isoform, have been identified. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).</p> |