

## Product datasheet for **SC126996**

### Microsomal Glutathione S transferase 1 (MGST1) (NM\_145791) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Microsomal Glutathione S transferase 1 (MGST1) (NM_145791) Human Untagged Clone
Tag:	Tag Free
Symbol:	Microsomal Glutathione S transferase 1
Synonyms:	GST12; MGST; MGST-I
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC126996 sequence for NM_145791 edited (data generated by NextGen Sequencing)

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ATGGTTGACCTCACCCAGGTAATGGATGATGAAGTATTCATGGCTTTTGCATCCTATGCA  
ACAATTATTCTTTCAAAAATGATGCTTATGAGTACTGCAACTGCATTCTATAGATTGACA  
AGAAAGGTTTTGCCAATCCAGAAGACTGTGTAGCATTGGCAAAGGAGAAAATGCCAAG  
AAGTATCTTCGAACAGATGACAGAGTAGAACGTGTACGCAGAGCCACCTGAATGACCTT  
GAAAATATTATTCCATTTCTTGGAAATGGCCTCCTGTATTCTTGAGTGGTCCCGACCCC  
TCTACAGCCATCCTGCACTTCAGACTATTTGTCGGAGCACGGATCTACCACACCATTGCA  
TATTTGACACCCCTTCCCAGCCAAATAGAGCTTTGAGTTTTTTTGTGGATATGGAGTT  
ACTCTTTCCATGGCTTACAGTTGCTGAAAAGTAAATTGTACCTGTAA
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Clone variation with respect to NM\_145791.1



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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_145791 unedited TTGATATTTGTATACGACTTACTATAGGGCGGCCGCAAATTCGCACGAGCCTCCTCCTC GGCCTCACCATTCCAGACCAAAATTGAAAAAGGTTGACCTCACCCAGGTAATGGATGAT GAAGTATTCATGGCTTTTGCATCCTATGCAACAATTATTTCTTTCAAAAATGATGCTTATG AGTACTGCAACTGCATTCTATAGATTGACAAGAAAGGTTTTTCCCAATCCAGAAGACTGT GTAGCATTTGGCAAAGGAGAAAAATGCCAAGAAGTATCTTCGAACAGATGACAGAGTAGAA CGTGACGCAGAGCCCACCTGAATGACCTTGAAAATATTATTCCATTTCTTGGAAATGGC CTCCTGTATTCTTGAGTGGTCCCGACCCCTCTACAGCCATCCTGCACTTCAGACTATTT GTCGGAGCACGGATCTACCACACCATTGCATATTTGACACCCCTTCCCCAGCCAAATAGA GCTTTGAGTTTTTTTGTGGATATGGAGTTACTCTTCCATGGCTTACAGTTGCTGAAA AGTAAATTGTACCTGTAAAGAAAATCATACAACTCAGCATCCAGTTGGCTTTTTAAGAAT TCTGTACTTCCAATGTATAATGAATACTTTCTTANATTTANGATTGTAGGGTACGAGGGC GAGCACNAAGAGAATTATGAAACGTGGGGCTAACCTCATTTCTGAATAATCTAGCATCT GCCAATATCCTGTATTTCTACTTTTACANTTTGGATTAATAAATACTAACATAGCTAATT CTTAAAGTCTTTCTGTCTGATTTTTAAAGTACTTTCTTTATAATTTGGATCATGTTATGA TTTGTAACATTACACAACACCTCACTTTTGAATCTATAAAAGAATCGCACGTATGAGAA ACCTATATCTCAATACTGCTGAANCAGACATGAATAAAGATTTCTAAGATGAAAAA AAAAAAACTCACTCTAGATTGCGGCC
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_145791
<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).
<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_145791.1</a> , <a href="#">NP_665734.1</a>
<b>RefSeq Size:</b>	987 bp
<b>RefSeq ORF:</b>	468 bp
<b>Locus ID:</b>	4257
<b>UniProt ID:</b>	<a href="#">P10620</a>
<b>Cytogenetics:</b>	12p12.3
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	Drug metabolism - cytochrome P450, Glutathione metabolism, Metabolism of xenobiotics by cytochrome P450

**Gene Summary:**

The MAPEG (Membrane Associated Proteins in Eicosanoid and Glutathione metabolism) family consists of six human proteins, two of which are involved in the production of leukotrienes and prostaglandin E, important mediators of inflammation. Other family members, demonstrating glutathione S-transferase and peroxidase activities, are involved in cellular defense against toxic, carcinogenic, and pharmacologically active electrophilic compounds. This gene encodes a protein that catalyzes the conjugation of glutathione to electrophiles and the reduction of lipid hydroperoxides. This protein is localized to the endoplasmic reticulum and outer mitochondrial membrane where it is thought to protect these membranes from oxidative stress. Several transcript variants, some non-protein coding and some protein coding, have been found for this gene. [provided by RefSeq, May 2012]

Transcript Variant: This variant (3, also called 1c) differs in the 5' UTR compared to variant 1. Variants 1, 2, 3, 4, and 5 all encode the same isoform (a).