

Product datasheet for SC330694

OriGene Technologies, Inc.

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Microsomal Glutathione S transferase 1 (MGST1) (NM_001260512) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Microsomal Glutathione S transferase 1 (MGST1) (NM_001260512) Human Untagged Clone

Tag: Tag Free
Symbol: MGST1

Synonyms: GST12; MGST; MGST-I

Vector: pCMV6-Entry (PS100001)

Fully Sequenced ORF: >SC330694 representing NM_001260512.

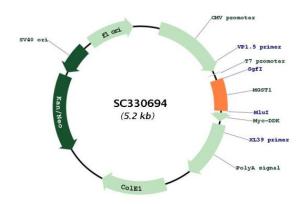
Blue=Insert sequence Red=Cloning site Green=Tag(s)

ATGGTTGACCTCACCCAGGTAATGGATGATGAAGTATTCATGGCTTTTGCATCCTATGCAACAATTATT CTTTCAAAAATGATGCTTATGAGTACTGCAACTGCATTCTATAGATTGACAAGAAAGGTTTTTGCCAAT CCAGAAGACTGTTAGCATTTTGGCAAAGGAGAAAATGCCAAGAAGTATCTTCGAACAGATGACAGAGTA GAACGTGTACGCAGTCATTGTAAAGCTGTTACGATTAGCATATTTGAACGGCAGAGCCAGAATGGGGCT

ACAAATGAAGTGAAAAGTATGCTTTACCGTGTGCAACAATTG<mark>TGA</mark>

Restriction Sites: Sgfl-Mlul

Plasmid Map:



ACCN: NM 001260512

Insert Size: 321 bp





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OTI Disclaimer: 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).

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 001260512.1</u>

 RefSeq Size:
 1088 bp

 RefSeq ORF:
 321 bp

 Locus ID:
 4257

 UniProt ID:
 P10620

Cytogenetics: 12p12.3

Protein Families: Druggable Genome, Transmembrane

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

cytochrome P450

MW: 12.2 kDa

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 (6) differs in the 5' UTR and contains an alternate coding exon

compared to variant 1, that causes a frameshift. The resulting isoform (b) has a shorter and

distinct C-terminus compared to isoform a.