

### Product datasheet for RC216148L3

#### OriGene Technologies, Inc.

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# Microsomal Glutathione S transferase 1 (MGST1) (NM\_145791) Human Tagged Lenti ORF Clone

**Product data:** 

**Product Type:** Expression Plasmids

Product Name: Microsomal Glutathione S transferase 1 (MGST1) (NM\_145791) Human Tagged Lenti ORF

Clone

Tag: Myc-DDK

Symbol: Microsomal Glutathione S transferase 1

**Synonyms:** GST12; MGST; MGST-I

**Mammalian Cell** 

Selection:

Puromycin

**Vector:** pLenti-C-Myc-DDK-P2A-Puro (PS100092)

Sgfl-Mlul

E. coli Selection: Chloramphenicol (34 ug/mL)

**ORF Nucleotide** 

Sequence:

The ORF insert of this clone is exactly the same as(RC216148).

**Restriction Sites:** 

**Cloning Scheme:** 

Cloning sites used for ORF Shuttling:

Sgf 1 ORF Mlu I

GGG ATC GC C ATG ---//--- NNN ACG CGT ---

			Kozak Consensus	
EcoR I	BamH I	RBS	Sgf I	ORF
CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGC C ATG				
		No. 1	M T	
	Mlu I	Not I Xho I	Myc.Tag	
NNŇ		CG CGG CCG CTC GAG		TCA GAA GAG
	TRT	Г	QKLI	S E E
DDK.Tag				
GAT CTG GCA GCA AAT GAT ATC CTG GAT TAC AAG GAT GAC GAC GAT AAG GTT TGGGTAGGAAG				
DL AANDI	LDY	KDDDDI	<u> </u>	

 $<sup>\</sup>ensuremath{^*}$  The last codon before the Stop codon of the ORF.

**ACCN:** NM 145791





## Microsomal Glutathione S transferase 1 (MGST1) (NM\_145791) Human Tagged Lenti ORF Clone – RC216148L3

ORF Size: 465 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).

**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 145791.1</u>

 RefSeq Size:
 987 bp

 RefSeq ORF:
 468 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**: 17.4 kDa

**Gene Summary:** The MAPEG (Membrane Associated Proteins in Eicosanoid and Glutathione metabolism)

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

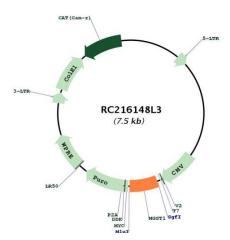
these membranes from oxidative stress. Several transcript variants, some non-protein coding

family consists of six human proteins, two of which are involved in the production of

and some protein coding, have been found for this gene. [provided by RefSeq, May 2012]



## **Product images:**



Circular map for RC216148L3