OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC203251

Microsomal Glutathione S transferase 1 (MGST1) (NM_020300) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Microsomal Glutathione S transferase 1 (MGST1) (NM_020300) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Microsomal Glutathione S transferase 1
Synonyms:	GST12; MGST; MGST-I
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC203251 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGTTGACCTCACCCAGGTAATGGATGATGAAGTATTCATGGCTTTTGCATCCTATGCAACAATTATTC
TTTCAAAAATGATGCTTATGAGTACTGCAACTGCATTCTATAGATTGACAAGAAAGGTTTTTGCCAATCC
AGAAGACTGTGTAGCATTTGGCAAAGGAGAAAATGCCAAGAAGTATCTTCGAACAGATGACAGAGTAGAA
CGTGTACGCAGAGCCCACCTGAATGACCTTGAAAATATTATTCCATTTCTTGGAATTGGCCTCCTGTATT
CCTTGAGTGGTCCCGACCCCTCTACAGCCATCCTGCACTTCAGACTATTTGTCGGAGCACGGATCTACCA
CACCATTGCATATTTGACACCCCTTCCCCAGCCAAATAGAGCTTTGAGTTTTTTTGTTGGATATGGAGTT
ACTCTTTCCATGGCTTACAGGTTGCTGAAAAGTAAATTGTACCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC203251 protein sequence
Red=Cloning site Green=Tags(s)

MVDLTQVMDDEVFMAFASYATIILSKMMLMSTATAFYRLTRKVFANPEDCVAFGKGENAKKYLRTDDRVE
RVRRAHLNDLENIIPFLGIGLLYSLSGPDPSTAILHFRLFVGARIYHTIAYLTPLPQPNRALSFFVGYGV
TLSMAYRLLKSKLYL

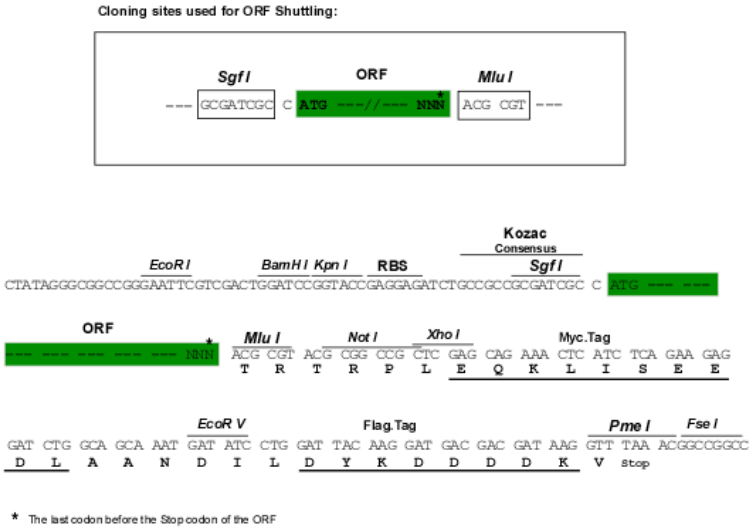
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6416_e10.zip

View online »

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_020300

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: NM_020300.5

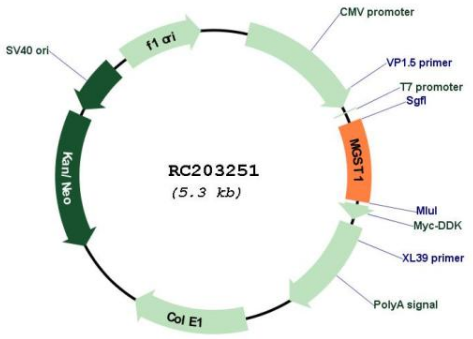
RefSeq Size: 944 bp

RefSeq ORF: 468 bp

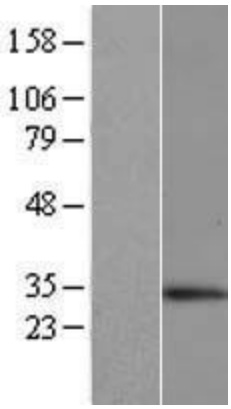
Locus ID: 4257

UniProt ID:	P10620
Cytogenetics:	12p12.3
Domains:	MAPEG
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Drug metabolism - cytochrome P450, Glutathione metabolism, Metabolism of xenobiotics by cytochrome P450
MW:	17.6 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]

Product images:



Circular map for RC203251



Western blot validation of overexpression lysate (Cat# [LY407879]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC216206] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).