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 RG223332

GSTM1 (NM_000561) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GSTM1 (NM_000561) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GSTM1
Synonyms:	GST1; GSTM1-1; GSTM1a-1a; GSTM1b-1b; GTH4; GTM1; H-B; MU; MU-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG223332 representing NM_000561 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGCCCATGATACTGGGGTACTGGGACATCCGCGGGCTGGCCCACGCCATCCGCCTGCTCCTGGAATACA CAGACTCAAGCTATGAGGAAAAGAAGTACACGATGGGGGACGCTCCTGATTATGACAGAAGCCAGTGGCT GAATGAAAAATTCAAGCTGGGCCTGGACTTTCCCAATCTGCCCTACTTGATTGATGGGGCTCACAAGATC ACCCAGAGCAACGCCATCTTGTGCTACATTGCCCGCAAGCACAACCTGTGTGGGGAGACAGAAGAGGAGA AGATTCGTGTGGACATTTTGGAGAACCAGACCATGGACAACCATATGCAGCTGGGCATGATCTGCTACAA TCCAGAATTTGAGAAACTGAAGCCAAAGTACTTGGAGGAACTCCCTGAAAAGCTAAAGCTCTACTCAGAG TTTCTGGGGAAGCGGCCATGGTTTGCAGGAAACAAGATCACTTTTGTAGATTTTCTCGTCTATGATGTCC TTGACCTCCACCGTATATTTGAGCCCAAGTGCTTGGACGCCTTCCCAAATCTGAAGGACTTCATCTCCCG CTTTGAGGGCTTGGAGAAGATCTCTGCCTACATGAAGTCCAGCCGCTTCCTCCCAAGACCTGTGTTCTCA AAGATGGCTGTCTGGGGCAACAAG ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

View online »

Protein Sequence:

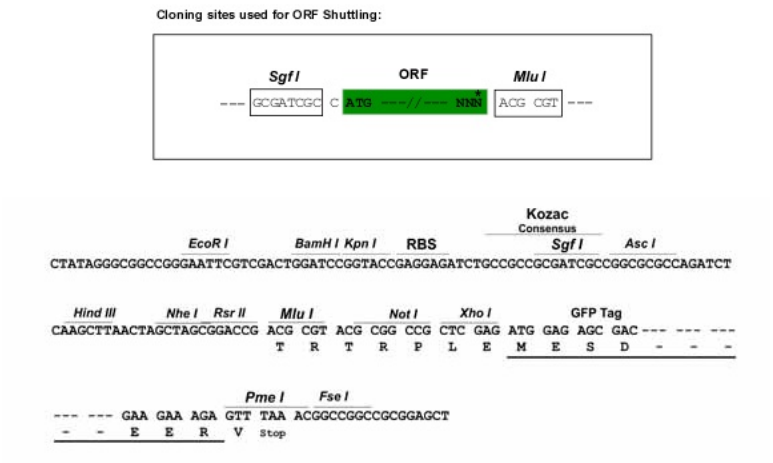
>RG223332 representing NM_000561
Red=Cloning site Green=Tags(s)

MPMILGYWDIRGLAHAIRLLLEYTDSSYEEKKYTMGDAPDYDRSQWLNEKFKLGLDFPNLPYLIDGAHKI
TQSNAILCYIARKHNLCGETEEEKIRVDILENQTMDNHMQLGMICYNPEFEKLKPKYLEELPEKLKLYSE
FLGKRPWFAGNKITFVDFLVYDVLDLHRIFEPKCLDAFPNLKDFISRFEGLEKISAYMKSSRFLPRPVFS
KMAVWGNK

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000561

ORF Size: 654 bp

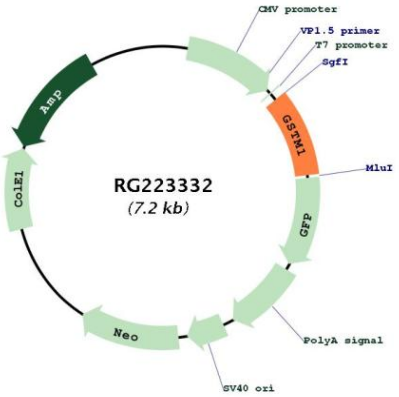
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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_000561.4
RefSeq Size:	1161 bp
RefSeq ORF:	657 bp
Locus ID:	2944
UniProt ID:	P09488
Cytogenetics:	1p13.3
Domains:	GST_N, GST_C
Protein Families:	Druggable Genome
Protein Pathways:	Drug metabolism - cytochrome P450, Glutathione metabolism, Metabolism of xenobiotics by cytochrome P450
Gene Summary:	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. Null mutations of this class mu gene have been linked with an increase in a number of cancers, likely due to an increased susceptibility to environmental toxins and carcinogens. Multiple protein isoforms are encoded by transcript variants of this gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG223332