Product datasheet for RG202097

GSTM4 (NM_000850) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GSTM4 (NM_000850) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GSTM4
Synonyms:	GSTM4-4; GTM4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG202097 representing NM_000850 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCCATGACACTGGGGTACTGGGACATCCGCGGGCTGGCCCACGCCATCCGCCTGCTCCTGGAATACA
CAGACTCAAGCTACGAGGAAAAGAAGTATACGATGGGGGACGCTCCTGACTATGACAGAAGCCAGTGGCT
GAATGAAAAATTCAAGCTGGGCCTGGACTTTCCCAATCTGCCCTACTTGATTGATGGGGCTCACAAGATC
ACCCAGAGCAACGCCATCCTGTGCTACATTGCCCGCAAGCACAACCTGTGTGGGGAGACAGAAGAGGAGA
AGATTCGTGTGGACATTTTGGAGAACCAGGCTATGGACGTCTCCAATCAGCTGGCCAGAGTCTGCTACAG
CCCTGACTTTGAGAAACTGAAGCCAGAATACTTGGAGGAACTTCCTACAATGATGCAGCACTTCTCACAG
TTCCTGGGGAAGAGGCCATGGTTTGTTGGAGACAAGATCACCTTTGTAGATTTCCTCGCCTATGATGTCC
TTGACCTCCACCGTATATTTGAGCCCAACTGCTTGGACGCCTTCCCAAATCTGAAGGACTTCATCTCCCG
CTTTGAGGGCTTGGAGAAGATCTCTGCCTACATGAAGTCCAGCCGCTTCCTCCCAAAACCTCTGTACACA
AGGGTGGCTGTCTGGGGCAACAAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

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Protein Sequence:

>RG202097 representing NM_000850
Red=Cloning site Green=Tags(s)

MSMTLGYWDIRGLAHAIRLLLEYTDSSYEEKKYTMGDAPDYDRSQWLNEKFKLGLDFPNLPYLIDGAHKI
TQSNAILCYIARKHNLCGETEEEKIRVDILENQAMDVSNQLARVCYSPDFEKLKPEYLEELPTMMQHFSQ
FLGKRPWFVGDKITFVDFLAYDVLDLHRIFEPNCLDAFPNLKDFISRFEGLEKISAYMKSSRFLPKPLYT
RVAVWGNK

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

ACCN: NM_000850

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).

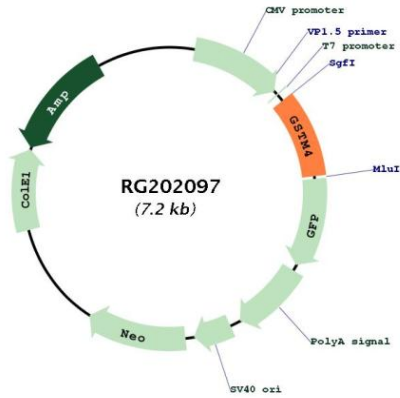|	
Reconstitution Method:	1. Centrifuge at 5,000xg for 5min.
	2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
	3. Close the tube and incubate for 10 minutes at room temperature.
	4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid 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_000850.3, NP_000841.1
RefSeq Size:	1436 bp
RefSeq ORF:	657 bp
Locus ID:	2948
UniProt ID:	Q03013
Cytogenetics:	1p13.3
Domains:	GST_N, GST_C
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. Diversification of these genes has occurred in regions encoding substrate-binding domains, as well as in tissue expression patterns, to accommodate an increasing number of foreign compounds. Multiple transcript variants, each encoding a distinct protein isoform, have been identified. [provided by RefSeq, Jul 2008]

Product images:

Circular map for RG202097