

## Product datasheet for **RC208900**

### **GSTM5 (NM\_000851) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** GSTM5 (NM\_000851) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** GSTM5  
**Synonyms:** GSTM5-5; GTM5  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC208900 representing NM\_000851  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCCATGACTCTGGGGTACTGGGACATCCGTGGGCTGGCCACGCCATCCGCTTGCTCCTGGAATACA  
CAGACTCAAGCTATGTGGAAAAGAAGTACACGCTGGGGGACGCTCCTGACTATGACAGAAGCCAGTGGCT  
GAATGAAAATTCAAGCTGGCCTGGACTTTCCCAATCTGCCCTACTTGATTGATGGGACTACAAGATC  
ACCCAGAGCAATGCCATCTGCGCTACATTGCCGCAAGCACAACCTGTGTGGGGAGACAGAAGAGGAGA  
AGATTCGTGTGGACATTTTGGAGAACCAGGTTATGGATAACCACATGGAGCTGGTCAGACTGTGCTATGA  
CCAGATTTTGAAGAACTGAAGCCAAAATACTTGAGGAACTCCCTGAAAAGCTAAAGCTCTACTCAGAG  
TTTCTGGGGAAGCGCCATGGTTTGCAGGAGACAAGATCACCTTTGTGGATTTTCCTTGCCTATGATGTC  
TTGACATGAAGCGTATATTTGAGCCCAAGTGCTTGAGCGCCTTCCTAAACTTGAAGGACTTCATCTCCCG  
CTTTGAGGGTTTGAAGAAGATCTCTGCCTACATGAAGTCCAGCCAATTCTCCGAGGTCTTTTGTGGGA  
AAGTCAGCTACATGGAACAGCAA

**ACGCGT**ACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC208900 representing NM\_000851  
Red=Cloning site Green=Tags(s)

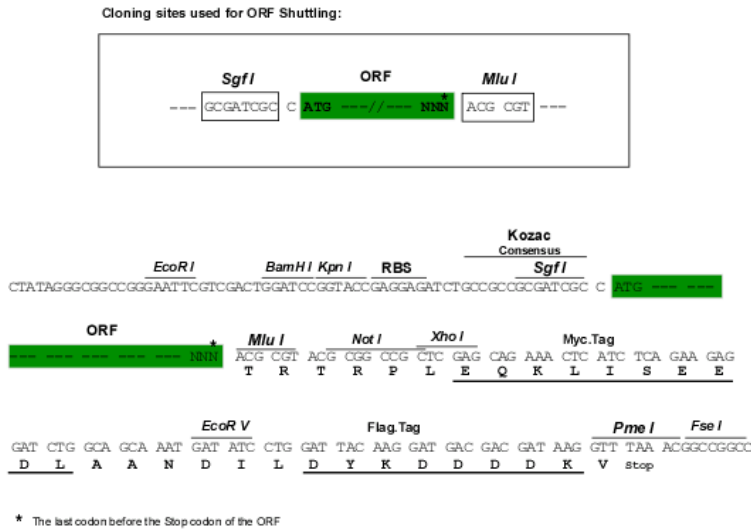
MPMTLGYWDIRGLAHAIRLLLEYTDSSYVEKKYTLGDAPDYDRSQWLNEFKLGLDFPNLPYLIDGTHKI  
 TQSNAILRYIARKHNLCGETEEEEIRVDILENQVMDNHMELVRLCYDPDFEKLKPKYLEELPEKLLYSE  
 FLGKRPWFAGDKITFVDFLAYDVLDMKRIFEPKCLDAFLNLKDFISRFEGLKKISAYMKSSQFLRGLLFG  
 KSATWNSK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1440\\_e05.zip](https://cdn.origene.com/chromatograms/ja1440_e05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000851

**ORF Size:** 654 bp

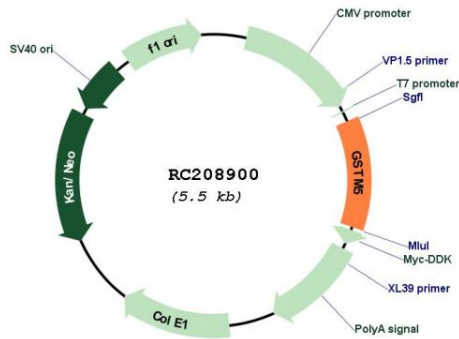
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

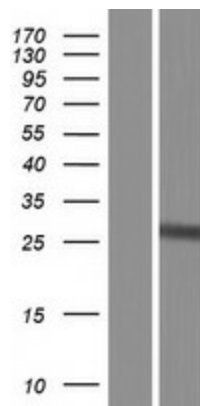
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_000851.4</a>
<b>RefSeq Size:</b>	1567 bp
<b>RefSeq ORF:</b>	657 bp
<b>Locus ID:</b>	2949
<b>UniProt ID:</b>	<a href="#">P46439</a>
<b>Cytogenetics:</b>	1p13.3
<b>Domains:</b>	GST_N, GST_C
<b>Protein Pathways:</b>	Drug metabolism - cytochrome P450, Glutathione metabolism, Metabolism of xenobiotics by cytochrome P450
<b>MW:</b>	25.5 kDa
<b>Gene Summary:</b>	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. [provided by RefSeq, Jul 2008]

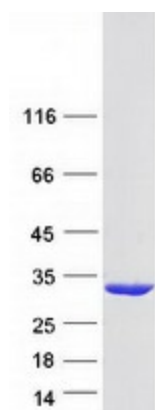
Product images:



Circular map for RC208900



Western blot validation of overexpression lysate (Cat# [LY424493]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208900 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GSTM5 protein (Cat# [TP308900]). The protein was produced from HEK293T cells transfected with GSTM5 cDNA clone (Cat# RC208900) using MegaTran 2.0 (Cat# [TT210002]).