

## Product datasheet for **RC212348**

### Glutathione Transferase zeta 1 (GSTZ1) (NM\_145871) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Glutathione Transferase zeta 1 (GSTZ1) (NM\_145871) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Glutathione Transferase zeta 1  
**Synonyms:** GSTZ1-1; MAAI; MAAID; MAI  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC212348 representing NM\_145871  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCAGGCGGGGAAGCCCATCCTCTATTCTATTTCCGAAGCTCCTGCTCATGGAGAGTTCAATTGCTC  
TGGCCTTGAAAGGCATCGACTACGAGACGGTGCCCATCAATCTCATAAAGGATGGGGCCAAACAGTTTTTC  
TAAGGACTTCCAGGCACTGAATCCTATGAAGCAGGTGCCAACCTGAAGATTGATGGAATCACCATTAC  
CAGTCAAACCTGTCTGCTCTGAAGCAAGTGGGAGAGGAGATGCAGCTGACCTGGGCCAGAACGCCATCA  
CTTGTGGCTTTAACGCCCTGGAGCAGATCCTACAGAGCACAGCGGCATATACTGTGTAGGAGACGAGGT  
GACCATGGCTGATCTGTGCTTGGTGCTCAGGTGGCAAATGCTGAAAGATTCAAGGTGGATCTACCCCC  
TACCCTACCATCAGCTCCATCAACAAGAGGCTGCTGGTCTTGGAGGCCTCCAGGTGTCTCACCCCTGCC  
GGCAGCCAGATACACCCACTGAGCTGAGGGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC212348 representing NM\_145871  
Red=Cloning site Green=Tags(s)  
MQAGKPILYSYFRSSCSWRVRIALALKGIDYETVPINLIKDGGQQFSKDFQALNPMKQVPTLKIDGITIH  
QSNLSVLKQVGEEMQLTWAQNAITCGFNALEQILQSTAGIYCVGDEVTMADLCLVPQVANAERFKVDLTP  
YPTISSINKRLLVLEAFQVSHPCRQPDTPTELRA

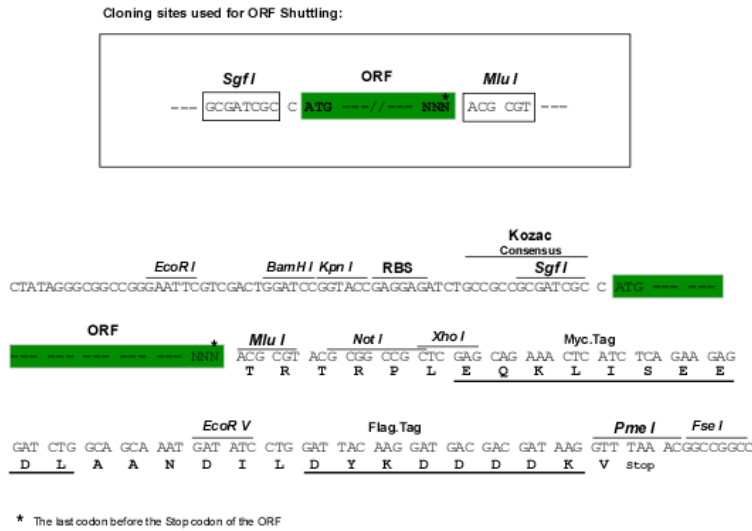
**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8026\\_c02.zip](https://cdn.origene.com/chromatograms/mk8026_c02.zip)



**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_145871

**ORF Size:** 522 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\\_145871.3](#)

**RefSeq Size:** 1145 bp

**RefSeq ORF:** 525 bp

**Locus ID:** 2954

**UniProt ID:** [O43708](#)

**Cytogenetics:** 14q24.3

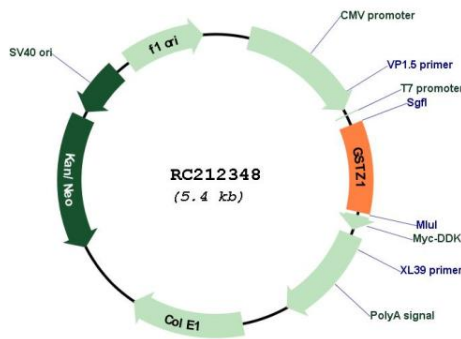
**Protein Families:** Druggable Genome

**Protein Pathways:** Drug metabolism - cytochrome P450, Glutathione metabolism, Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Tyrosine metabolism

**MW:** 19.2 kDa

**Gene Summary:** This gene is a member of the glutathione S-transferase (GSTs) super-family which encodes multifunctional enzymes important in the detoxification of electrophilic molecules, including carcinogens, mutagens, and several therapeutic drugs, by conjugation with glutathione. This enzyme catalyzes the conversion of maleylacetoacetate to fumarylacetoacetate, which is one of the steps in the phenylalanine/tyrosine degradation pathway. Deficiency of a similar gene in mouse causes oxidative stress. Several transcript variants of this gene encode multiple protein isoforms. [provided by RefSeq, Jul 2015]

**Product images:**



Circular map for RC212348