

Product datasheet for **RC203086**

GST3 (GSTP1) (NM_000852) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: GST3 (GSTP1) (NM_000852) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: GST3
Synonyms: DFN7; FAEES3; GST3; GSTP; HEL-S-22; PI
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC203086 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCCGCCCTACACCGTGGTCTATTTCCAGTTCGAGGCCGCTGCGCGCCCTGCGCATGCTGCTGGCAG
 ATCAGGGCCAGAGCTGGAAGGAGGAGGTGGTGACCGTGGAGACGTGGCAGGAGGGCTCACTCAAAGCCTC
 CTGCCTATACGGGCAGCTCCCAAGTTCAGGACGGAGACCTCACCTGTACCAGTCCAATACCATCCTG
 CGTCACCTGGGCCGACCCTTGGGCTCTATGGGAAGACCAGCAGGAGGCAGCCCTGGTGGACATGGTGA
 ATGACGGCGTGGAGGACCTCCGCTGCAAATACGTCTCCCTCATCTACACCAACTATGAGGCGGGCAAGGA
 TGACTATGTGAAGGCACTGCCCGGCAACTGAAGCCTTTTGAGACCTGCTGTCCAGAACCAGGGAGGC
 AAGACCTTCATTGTGGGAGACCAGATCTCCTTCGCTGACTACAACCTGCTGGACTTGCTGCTGATCCATG
 AGGTCCTAGCCCCTGGCTGCCTGGATGCGTTCCCCCTGCTCTCAGCATATGTGGGGCGCCTCAGCGCCC
 GCCAAGCTCAAGGCCTTCTGGCTCCCTGAGTACGTGAACCTCCCCATCAATGGCAACGGGAAACAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC203086 protein sequence
 Red=Cloning site Green=Tags(s)

MPPYTVVYFPVRGRCAALRMLLADQQSWKEEVTVETWQEGSLKASCLYQLPKFQDGLTLYQSNTIL
 RHLGRTLGLYGKDQQAALVDMVNDGVEDLRCKYVSLIYTNYEAGKDDYVKALPGQLKPFETLLSQNQQG
 KTFIVGDQISFADYNLLDLLLIHEVLAPGCLDAFPLL SAYVGRLSARPKLKAFLASPEYVNLPIINGNKQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



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Chromatograms: https://cdn.origene.com/chromatograms/mk6146_a10.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_000852

ORF Size: 630 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 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.

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_000852.4](#)

RefSeq Size: 986 bp

RefSeq ORF: 633 bp

Locus ID: 2950

UniProt ID: [P09211](#)

Cytogenetics: 11q13.2

Domains: GST_N, GST_C

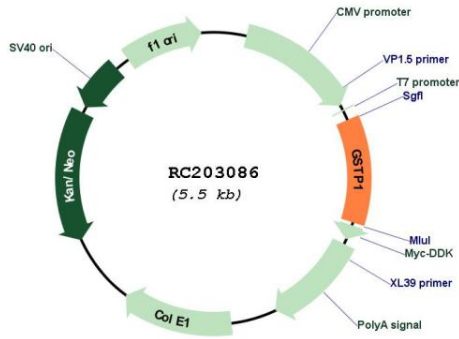
Protein Families: Druggable Genome

Protein Pathways: Drug metabolism - cytochrome P450, Glutathione metabolism, Metabolism of xenobiotics by cytochrome P450, Pathways in cancer, Prostate cancer

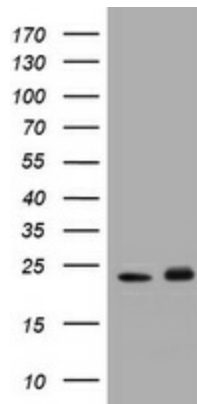
MW: 23.3 kDa

Gene Summary: Glutathione S-transferases (GSTs) are a family of enzymes that play an important role in detoxification by catalyzing the conjugation of many hydrophobic and electrophilic compounds with reduced glutathione. Based on their biochemical, immunologic, and structural properties, the soluble GSTs are categorized into 4 main classes: alpha, mu, pi, and theta. This GST family member is a polymorphic gene encoding active, functionally different GSTP1 variant proteins that are thought to function in xenobiotic metabolism and play a role in susceptibility to cancer, and other diseases. [provided by RefSeq, Jul 2008]

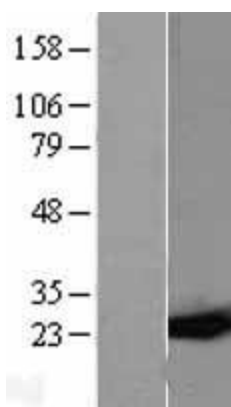
Product images:



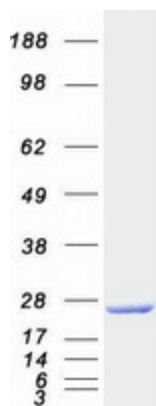
Circular map for RC203086



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GSTP1 (Cat# RC203086, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GSTP1(Cat# [TA801775]). Positive lysates [LY400300] (100ug) and [LC400300] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400300]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203086 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GSTP1 protein (Cat# [TP303086]). The protein was produced from HEK293T cells transfected with GSTP1 cDNA clone (Cat# RC203086) using MegaTran 2.0 (Cat# [TT210002]).