

Product datasheet for **RC208961**

GSTO2 (NM_183239) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GSTO2 (NM_183239) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GSTO2
Synonyms:	bA127L20.1; GSTO 2-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC208961 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCTGGGGATGCGACCAGGACCCTGGGGAAAGGAAGCCAGCCCCAGGGCCAGTCCCGGAGGGGCTGA
TCCGCATCTACAGCATGAGGTTCTGCCCTATTCTCACAGGACCCGCCTCGTCCTCAAGGCCAAAGACAT
CAGACATGAAGTGGTCAACATTAACCTGAGAAACAAGCCTGAATGGTACTATACAAAGCACCCCTTTGGC
CACATTCCTGTCCTGGAGACCAGCCAATGTCAACTGATCTATGAATCTGTTATTGCTTGTGAGTACCTGG
ATGATGCTTATCCAGGAAGGAAGCTGTTCCATATGACCCTTATGAACGAGCTCGCCAAAAGATGTTATT
GGAGCTATTTTGAAGGTCCACATTTGACCAAGGAGTGCTGGTAGCGTTGAGATGTGGGAGAGAATGC
ACTAATCTGAAGGCAGCCCTGCGTCAGGAATTCAGCAACCTGGAAGAGATTCTTGAGTATCAGAACCA
CCTTCTTTGGTGGAACTGTATATCCATGATTGATTACCTCCTCTGGCCCTGGTTTGAGCGGCTGGATGT
GTATGGGATACTGGACTGTGTAGCCACACGCCAGCCCTGCGGCTCTGGATATCAGCCATGAAGTGGGAC
CCCACAGTCTGTGCTCTTCTCATGGATAAGAGCATTTCCAGGGCTTCTTGAATCTCTATTTTCAGAAC
ACCCTAATGCCTTTGACTTTGGGCTGTGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC208961 protein sequence
Red=Cloning site Green=Tags(s)

MSGDATRTLKGKSQPPGPVPEGLIRIYSMRFCPYSHRTRLVLKAKDIRHEVVNINLRNKPEWYYTKHPFG
 HIPVLETSQCQLIYESVIACEYLDDAYPGRKLPYDPYERARQKMLLELFCKVPHLTKCELVALRCGREC
 TNLKAALRQEFNSLEEILEYQNTFFGGTCISMIDYLLWPWFERLDVYGILDVSHTPALRLWISAMKWD
 PTVCALLMDKSIFQGLNLYFQNNPNAFDGLC

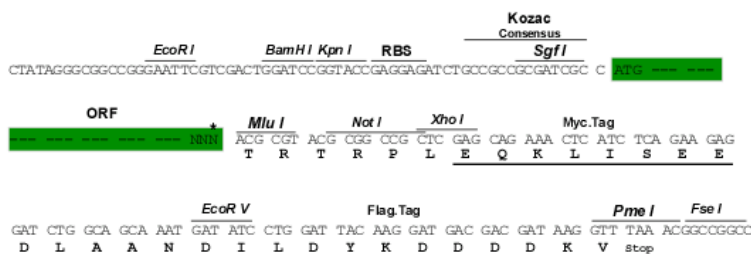
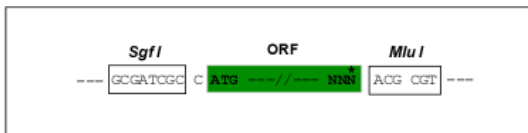
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6353_g07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_183239

ORF Size: 729 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.

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

RefSeq: [NM_183239.2](#)

RefSeq Size: 1546 bp

RefSeq ORF: 732 bp

Locus ID: 119391

UniProt ID: [Q9H4Y5](#)

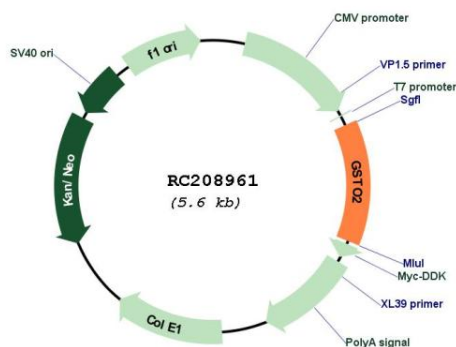
Cytogenetics: 10q25.1

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

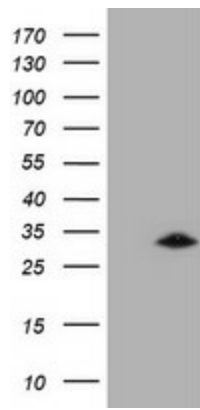
MW: 28.3 kDa

Gene Summary: The protein encoded by this gene is an omega class glutathione S-transferase (GST). GSTs are involved in the metabolism of xenobiotics and carcinogens. Four transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Jul 2010]

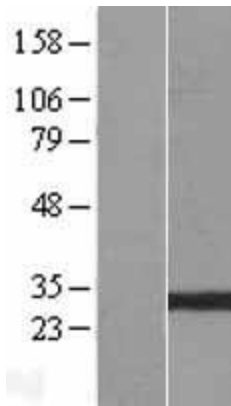
Product images:



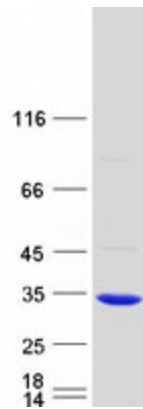
Circular map for RC208961



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GSTO2 (Cat# RC208961, 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-GSTO2(Cat# [TA504083]). Positive lysates [LY405234] (100ug) and [LC405234] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY405234]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208961 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GSTO2 protein (Cat# [TP308961]). The protein was produced from HEK293T cells transfected with GSTO2 cDNA clone (Cat# RC208961) using MegaTran 2.0 (Cat# [TT210002]).