

Product datasheet for **RG204624**

GSTA3 (NM_000847) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GSTA3 (NM_000847) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GSTA3
Synonyms:	GSTA3-3; GTA3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG204624 representing NM_000847 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCAGGGAAGCCCAAGCTTCACTACTTCAATGGACGGGGCAGAATGGAGCCCATCCGGTGGCTCTTGG
CTGCAGCTGGAGTGGAGTTTGAAGAGAAATTTATAGGATCTGCAGAAGATTTGGGAAAGTTAAGAAATGA
TGGGAGTTTGATGTTCCAGCAAGTACCAATGGTTGAGATTGATGGGATTAAGTTGGTACAGACCAGAGCC
ATTCTCAACTACATTGCCAGCAAATACAACCTCTACGGGAAAGACATAAAGGAGAGAGCCCTAATTGATA
TGTATACAGAAGGTATGGCAGATTTGAATGAAATGATCCTTCTTCTGCCCTTATGTCGACCTGAGGAAAA
AGATGCCAAGATTGCCTTGATCAAAGAGAAAACAAAAGTCGCTATTTCCCTGCCTTCGAAAAAGTGTTA
CAGAGCCATGGACAAGACTACCTTGTGGCAACAAGCTGAGCCGGGCTGACATTAGCCTGGTGAACTTC
TCTACTATGTGGAAGAGCTTGACTCCAGCCTTATCTCAACTTCCTCTGCTGAAGGCCCTGAAAACCGAG
AATCAGCAACCTGCCACGGTGAAGAAGTTTCTACAGCCTGGCAGCCCAAGGAAGCTCCCGCAGATGCA
AAAGCTTTAGAAGAAGCCAGAAAGATTTTCAGGTTT

ACGCGTACGCGGCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG204624 representing NM_000847
 Red=Cloning site Green=Tags(s)

MAGKPKLHYFNGRGRMEPIRWLLAAAGVEFEKFIGSAEDLGKLRNDGSLMFQQVPMVEIDGIKLVQTRA
 ILNYIASKYNLYGKDIKERALIDMYTEGMADLNEMILLPLCRPEEKDAKIALIKEKTKSRYPFAFEKVL
 QSHGQDYL VG NKL SRADISLVELLYVEELDSSLSISNFPLLKALKTRISNLP TVKKFLQPGSPRKPPADA
 KALEEARKIFRF

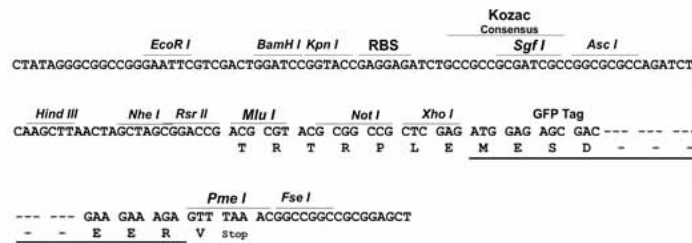
TRTRPLE - GFP Tag - V

Chromatograms: https://cdn.origene.com/chromatograms/ja1757_g09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



ACCN: NM_000847

ORF Size: 666 bp

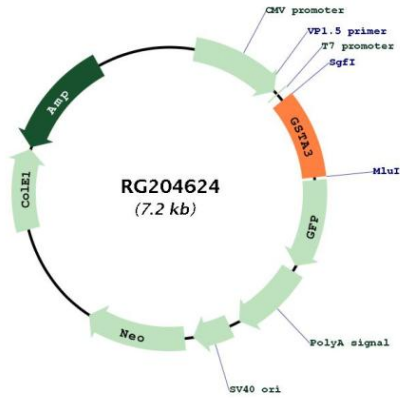
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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:	<ol style="list-style-type: none">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_000847.2
RefSeq Size:	937 bp
RefSeq ORF:	669 bp
Locus ID:	2940
UniProt ID:	Q16772
Cytogenetics:	6p12.2
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. These enzymes are involved in cellular defense against toxic, carcinogenic, and pharmacologically active electrophilic compounds. 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 belonging to the alpha class genes that are located in a cluster mapped to chromosome 6. Genes of the alpha class are highly related and encode enzymes with glutathione peroxidase activity. However, during evolution, this alpha class gene diverged accumulating mutations in the active site that resulted in differences in substrate specificity and catalytic activity. The enzyme encoded by this gene catalyzes the double bond isomerization of precursors for progesterone and testosterone during the biosynthesis of steroid hormones. An additional transcript variant has been identified, but its full length sequence has not been determined. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG204624