

# Product datasheet for RG202130

### GSTA4 (NM\_001512) Human Tagged ORF Clone

### **Product data:**

#### **OriGene Technologies, Inc.**

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Product Type:	Expression Plasmids
Product Name:	GSTA4 (NM_001512) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GSTA4
Synonyms:	GSTA4-4; GTA4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	<pre>&gt;RG202130 representing NM_001512 Red=Cloning site Blue=ORF Green=Tags(s)</pre>
	TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCC <mark>GCGATCGC</mark> C
	ATGGCAGCAAGGCCCAAGCTCCACTATCCCAACGGAAGAGGCCGGATGGAGTCCGTGAGATGGGTTTTAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence:	>RG202130 representing NM_001512 <mark>Red=</mark> Cloning site Green=Tags(s)
	MAARPKLHYPNGRGRMESVRWVLAAAGVEFDEEFLETKEQLYKLQDGNHLLFQQVPMVEIDGMKLVQTRS ILHYIADKHNLFGKNLKERTLIDMYVEGTLDLLELLIMHPFLKPDDQQKEVVNMAQKAIIRYFPVFEKIL RGHGQSFLVGNQLSLADVILLQTILALEEKIPNILSAFPFLQEYTVKLSNIPTIKRFLEPGSKKKPPPDE IYVRTVYNIFRP
	TRTRPLE - GFP Tag - V
Restriction Sites:	Sgfl-Mlul
Cloning Scheme:	Cloning sites used for ORF Shuttling: Sgf I ORF Miu I GCGATCGC C ATG NNET ACG CGT
	Kozac         EcoR I       BamH I Kpn I       RBS       Sgf I       Asc I         CTATAGGCCGGCGGGAATTCGTCGGACCGGATCCGCGGAGAGATCTGCCCGCGCGGCGCGGGGCGGCGGGCG

ACCN:	NM_001512
ORF Size:	666 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. <u>More info</u>
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).

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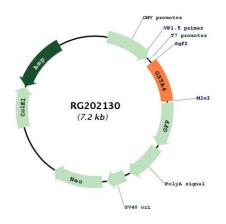
## **GSTA4 (NM\_001512) Human Tagged ORF Clone – RG202130**

Reconstitution Method:	<ol> <li>Centrifuge at 5,000xg for 5min.</li> <li>Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>Close the tube and incubate for 10 minutes at room temperature.</li> <li>Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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>
RefSeq:	<u>NM 001512.4</u>
RefSeq Size:	1317 bp
RefSeq ORF:	669 bp
Locus ID:	2941
UniProt ID:	<u>015217</u>
Cytogenetics:	6p12.2
Domains:	GST_N, GST_C
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. The alpha class genes, which are located in a cluster on chromosome 6, are highly related and encode enzymes with glutathione peroxidase activity that function in the detoxification of lipid peroxidation products. Reactive electrophiles produced by oxidative metabolism have been linked to a number of degenerative diseases including Parkinson's disease, Alzheimer's disease, cataract formation, and atherosclerosis. [provided by RefSeq, Jul 2008]

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### **Product images:**



Circular map for RG202130

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