

## Product datasheet for **RC202130**

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

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GSTA4 (NM_001512) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GSTA4
Synonyms:	GSTA4-4; GTA4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202130 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCAGCAAGGCCAAGCTCCACTATCCCAACGGAAGAGGCCGGATGGAGTCCGTGAGATGGGTTTTAG  
CTGCCCGGAGTCGAGTTTGATGAAGAATTTCTGAAACAAAAGAACAGTTGTACAAGTTCAGGATGG  
TAACCACCTGCTGTTCCAACAAGTGCCCATGGTTGAAATTGACGGGATGAAGTTGGTACAGACCCGAAGC  
ATTCTCCACTACATAGCAGACAAGCACAATCTCTTTGGCAAGAACCTCAAGGAGAGAACCCTGATTGACA  
TGTACGTGGAGGGGACTGGATCTGCTGGAAGTCTTATCATGCATCCTTTCTTAAAACCAGATGATCA  
GCAAAAGGAAGTGGTTAACATGGCCAGAAAGGCTATAATTAGATACTTTCTGTGTTGAAAAGATTTTA  
AGGGGTCACGGACAAAGCTTTCTTGTGGTAATCAGCTGAGCCTTGACAGATGTGATTTTACTCCAAACCA  
TTTTAGCTCTAGAAGAGAAAATTCCTAATATCCTGTCTGCATTTCTTTCTCCAGGAATACACAGTGAA  
ACTAAGTAATATCCCTACAATTAAGAGATTCCTTGAACCTGGCAGCAAGAAGAAGCCTCCCCTGATGAA  
ATTTATGTGAGAACCCTACAACATCTTAGGCCA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC202130 protein sequence  
 Red=Cloning site Green=Tags(s)

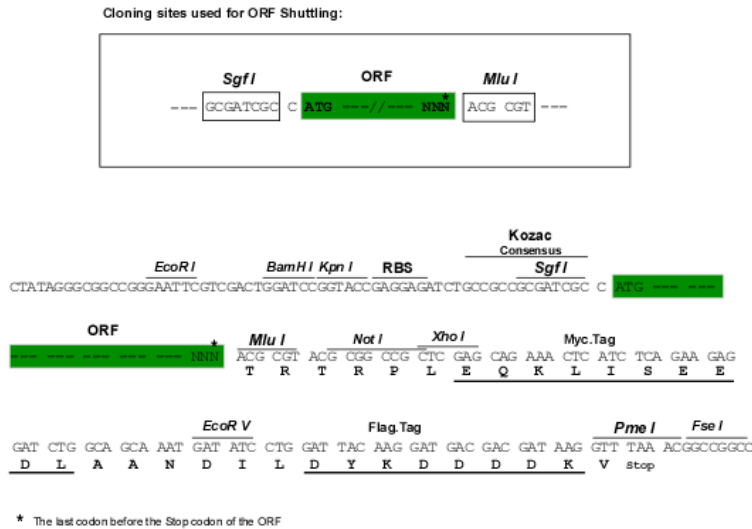
MAARPKLHYPNGRGRMESVRWVLAAGVEFDEEFLETKEQLYKLDQGNHLLFQQVPMVEIDGMKLVQTRS  
 ILHYIADKHNLFGKNLKERTLIDMYVEGTLDLLLELLIMHPFLKPDDQQKEVVNMAQKAIIRYFPVFEKIL  
 RGHGQSFLVGNQLSLADVILLQTILALEEKIPNILSAFPFLQEYTVKLSNIPTIKRFLEPGSKKKPPDPDE  
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

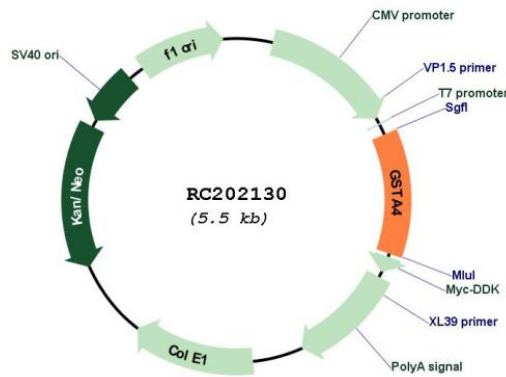
Chromatograms: [https://cdn.origene.com/chromatograms/mk6012\\_a12.zip](https://cdn.origene.com/chromatograms/mk6012_a12.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



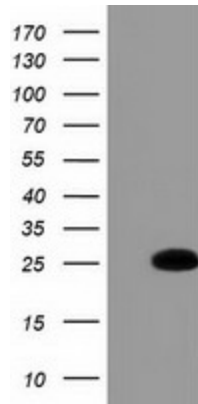
Plasmid Map:



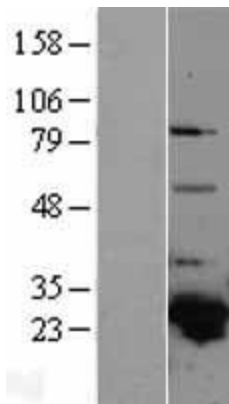
ACCN: NM\_001512

ORF Size: 666 bp

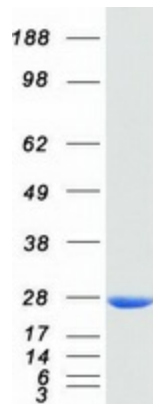
<b>OTI Disclaimer:</b>	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001512.4</a>
<b>RefSeq Size:</b>	1352 bp
<b>RefSeq ORF:</b>	669 bp
<b>Locus ID:</b>	2941
<b>UniProt ID:</b>	<a href="#">O15217</a>
<b>Cytogenetics:</b>	6p12.2
<b>Domains:</b>	GST_N, GST_C
<b>Protein Pathways:</b>	Drug metabolism - cytochrome P450, Glutathione metabolism, Metabolism of xenobiotics by cytochrome P450
<b>MW:</b>	25.7 kDa
<b>Gene Summary:</b>	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]

**Product images:**


HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GSTA4 (Cat# RC202130, 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-GSTA4 (Cat# [TA501903]). Positive lysates [LY400591] (100ug) and [LC400591] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400591]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202130 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GSTA4 protein (Cat# [TP302130]). The protein was produced from HEK293T cells transfected with GSTA4 cDNA clone (Cat# RC202130) using MegaTran 2.0 (Cat# [TT210002]).