

## Product datasheet for **SC120520**

### **GPT2 (NM\_133443) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	GPT2 (NM_133443) Human Untagged Clone
Tag:	Tag Free
Symbol:	GPT2
Synonyms:	ALT2; GPT 2; MRT49; NEDSPM
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC120520 sequence for NM\_133443 edited (data generated by NextGen Sequencing)

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ATGCAGCGGGCGGCGGCTGGTCCGGCGGGGCTGTGGTCCCCGGACCCCCAGCTCCTGG
GGCCGCAGCCAGAGCAGCGCGGCCGCCGAGGCCTCGGCGGTGCTCAAGGTGCGGCCCGAG
CGCAGCCGGCGCGAGCGCATCCTCACGCTGGAGTCCATGAACCCGAGGTGAAGGCGGTG
GAGTACGCCGTGCGGGGACCCATCGTCTCAAGGCCGGCGAGATCGAGCTCGAGCTGCAG
CGGGGTATCAAAAAGCCATTACAGAGGTCATCCGAGCCAACATCGGGGACGCCCCAGGCT
ATGGGGCAGCAGCCAATCACCTTCTCCGGCAGGTGATGGCACTATGCACCTACCCAAAC
CTGCTGGACAGCCCCAGCTTCCCAGAAGATGCTAAGAAACGTGCCCGGGGATCCTGCAG
GCTTGTGGCGGGAACAGCCTGGGGTCTACAGTGTAGCCAGGGTGTCAACTGCATCCGT
GAAGATGTGGCTGCCTACATCACCAGGAGGGATGGCGGTGTGCCTGCGGACCCCGACAAC
ATCTACCTGACCACGGGAGCTAGTGACGGCATTCTACGATCCTGAAGATCCTCGTCTCC
GGGGCGGCAAGTACGGACAGGTGTGATGATCCCATCCCACAATATCCCCTTATTCA
GCTGTCATCTCTGAGCTCGACGCCATCCAGGTGAATTACTACCTGGACGAGGAGAACTGC
TGGGCGTGAATGTGAATGAGCTCCGGCGGGCGGTGCAGGAGGCCAAAGACCACTGTGAT
CCTAAGGTGCTCTGCATCAATCAACCCTGGGAACCCACAGGCCAGGTACAAGCAGAAAAG
TGCATAGAAGATGTGATCCACTTTGCTGGGAAGAGAAGCTCTTTCTCCTGGCTGATGAG
GTGTACCAGGACAACGTGTAATCTCCAGATTGCAGATTCCAATCCTTCAAGAAGGTGCTG
TACGAGATGGGGCCGAGTACTCCAGCAACGTGGAGCTCGCCTCCTTCCACTCCACCTCC
AAGGGCTACATGGGCGAGTGTGGTTACAGAGGAGGCTACATGGAGGTGATCAACCTGCAC
CCTGAGATCAAGGGCCAGCTGGTGAAGCTGCTGTGCGTGCCTGTGCCCCCAGTGTCT
GGGCAGGCCGCCATGGACATTGCTGTGAACCCCGGTGGCAGGAGAGGAGTCTTTGAG
CAATTACGCCGAGAGAAGGAGTCCGTCTGGGTAATCTGGCCAAAAAAGCAAAGCTGACG
GAAGACCTGTTTAAACCAAGTCCCAGGAATCACTGCAACCCCTTGCAGGGGGCCATGTAC
GCCTTCCCTCGGATCTTATTCTGCAAAAGCTGTGGAGGCTGCTCAGGCCCATCAAATG
GCTCCAGACATGTTCTACTGCATGAAGCTCCTGGAGGAGACTGGCATCTGTGCTGCCCC
GGCAGTGGCTTTGGGCAGAGGGAAGGCACTTACCACTTCCAGGATGACTATCCTCCCTCCA
GTGGAGAAGCTGAAAACGGTGTGCAGAAGGTGAAAGACTTCCACATCAACTTCTGGAG
AAGTACGCGTGA
    
```

Clone variation with respect to NM\_133443.2

**5' Read Nucleotide Sequence:**

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>OriGene 5' read for NM_133443 unedited
GGCTTCANATTTGTATACGACTCACTATAGGCGGCCGGAATTCGCACGAGGCGCAAGCG
CGCGATGCAGCGGGCGGCGGCTGGTCCGGCGGGGCTGTGGTCCCCGGACCCCCAGCTC
CTGGGGCCGACGCGAGCAGCGCGGCCGCCGAGGCCTCGGCGGTGCTCAAGGTGCGGCC
CGAGCGCAGCCGGCGGAGCGCATCCTCACGCTGGAGTCCATGATCCCCGAGGTGAAGGC
GGTGGAGTACGCCGTGCGGGGACCCCTCGTCTCAAGGCCGCGGAGATCGAGCTCGAGCT
GCAGCGGGGTATCAAAAAGACATTACAGAGGTCATCCGAGCCAACATCGGGGACGCCCA
GGCTATGGGGCAGCAGCCAATCACCTTCTCCGGCAGGTGATGGCACTATGCACCTACCC
AAACCTGTGGACAGCCCCAGCTTCCCAGAAGATGCTAAGAAACGTGCCCGGGGATCCT
GCAGGCTTGTGGCGGGAACAGCCTGTGGTCTACAGTGTAGCCAGGGTGTCAACTGCAT
CCGTGAAGATGTGGTGCCTACATCACCAGGAGGGATGGCGGTGTGCCTGCGGACCCCGA
CAACATCTACCTGACCACGGGAGCTAGTGACGGCATTCTACGATCCTGAAGATCCTCGT
CTCCCGGGCGGCAAGTACGGACAGGTGTGATGATCCCATCCACAATATCCCCTCTAT
TCAGCTGTCTCTGAGCTCGACGCCCTTCCAGTGAACACTACTACCTGGACCAAGAGAAC
TGCTGGGCGTGAATGTGATGAACTCCCGCCCGGTGCAGGAGCCCAAGACACTGTGATC
CTAGTGCTGCAATCAACCTGGGACCCCAAGCCAGTCAAACAAAAGGCTTC
    
```

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_133443

<b>Insert Size:</b>	4200 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<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>	<u><a href="#">NM_133443.1</a></u> , <u><a href="#">NP_597700.1</a></u>
<b>RefSeq Size:</b>	3957 bp
<b>RefSeq ORF:</b>	1572 bp
<b>Locus ID:</b>	84706
<b>UniProt ID:</b>	<u><a href="#">Q8TD30</a></u>
<b>Cytogenetics:</b>	16q11.2
<b>Domains:</b>	aminotran_1_2
<b>Protein Pathways:</b>	Alanine, aspartate and glutamate metabolism, Metabolic pathways
<b>Gene Summary:</b>	<p>This gene encodes a mitochondrial alanine transaminase, a pyridoxal enzyme that catalyzes the reversible transamination between alanine and 2-oxoglutarate to generate pyruvate and glutamate. Alanine transaminases play roles in gluconeogenesis and amino acid metabolism in many tissues including skeletal muscle, kidney, and liver. Activating transcription factor 4 upregulates this gene under metabolic stress conditions in hepatocyte cell lines. A loss of function mutation in this gene has been associated with developmental encephalopathy. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Apr 2015]</p> <p>Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).</p>