

Product datasheet for **SC320593**

GOT2 (NM_002080) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GOT2 (NM_002080) Human Untagged Clone
Tag:	Tag Free
Symbol:	GOT2
Synonyms:	DEE82; KAT4; KATIV; KYAT4; mitAAT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

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>OriGene sequence for NM_002080.2
GCTCGCCCTCTGCTCCGTCTGCGGCTGCCACTGCCCTCTACGGTCCACCATGGCCCT
GCTGCACTCCGGCCGCGTCTCCCGGGATCGCCGCCGCTTCCACCCGGGCTCGCCGC
CGCGGCCCTCTGCCAGAGCCAGCTCTGGTGGACCCATGTGAAATGGGACCTCCAGATCC
CATTCTGGGAGTCACTGAAGCCTTTAAGAGGGACACCAATAGCAAAAAGATGAATCTGGG
AGTTGGTGCCTACCGGGATGATAATGAAAGCCTTACGTTCTGCCTAGCGTCCGCAAGGC
AGAGCCAGATTGCCGCAAAAAATTTGGACAAGGAATACCTGCCATTGGGGGACTGGC
TGAATTTTGAAGGCATCTGCAGAACTAGCCCTGGGTGAGAACAGCGAAGTCTTGAAGAG
TGCCCGTGTGCTACTGTGCAGACCATTCTGGAAGTGGAGCCTTAAGGATCGGAGCCAG
TTTTCTGCAAAGATTTTTAAGTTCAGCCGAGATGTCTTTCTGCCCAAACCAACCTGGGG
AAACCACACACCCATCTTCAGGGATGCTGGCATGCAGCTACAAGTTATCGGTATTATGA
CCCCAAGACTTGGGTTTTGACTTCACAGGCGCTGTGGAGGATATTTCAAAAATACCAGA
GCAGAGTGTCTTCTTCTGCATGCCTGCGCCACAATCCCAGGGAGTGGACCCGCTCC
GGAACAGTGAAGGAAATAGCAACAGTGGTGAAGAAAAGGAATCTCTTTGCGTCTTTGA
CATGGCCTACCAAGGCTTTGCCAGTGGTATGGTATAAGGATGCCTGGGCTGTGGCCCA
CTTCATCGAACAGGGCATTAAATGTTTGCCTCTGCCAATCATATGCCAAGAACATGGGCTT
ATATGGTGAGCGTGTAGGAGCCTTCACTATGGTCTGCAAAGATGCGGATGAAGCCAAAAG
GGTAGAGTCAAGTGAAGATCTTGATCCGTCCCATGTATTCCAACCTCCCTCAATGG
GGCCCGGATTGCTGCTGCCATTCTGAACACCCAGATTTGCGAAAACAATGGCTGCAAGA
AGTGAAAGTCAATGGTGAACGCATCATTGGCATGCGGACTCAACTGGTCTCAACCTCAA
GAAGGAGGTTCCACCCACAATTGGCAACATCACCGACCAATGGCATGTTCTGTTT
CACAGGGCTAAAGCCTGAACAGGTGGAGCGGCTGATCAAGGAGTCTCCATCTACATGAC
AAAAGATGGCCGCATCTCTGTGGCAGGGTCCCTCCAGCAACGTGGGCTACCTTGCCCA
TGCCATTCACCAGGCCCAAGTAATGTCCTGGTGCAGGAAACAGAGACAACCTTTCT
GTCTTCAGCCTCTGCTATTGAGAGCTTCACACAGACAATGAGAGAGGGTGGATGGTGGT
AGTGGATCATTTCTTTCAGCCACAGTGTGTAACACTCAGCATTGAAATGTTTCTCAGAAA
AGAACATGTAGTGACACAGGGCAGAGGCATCCATGGCTGGCGTCTGGAATATTAACCAA
ACTCTCCCGGTCTTTTTTCTCCAACCTTTCTCAAAGAGTTTACATGTGCAAGAAAGTC
ATCGCACAAAAAACCTGTCAATTATGCCATTGCAATATTTCAGAAGCTTAACTGAAGT
GTCAGGTTCTCGTGAGAAACAGCACACGTTAGAGGCTTTGAGAGAAGGCCTAGTCTGT
CATGAGTAGTCGGCCTCGTGTCTGCTCCTCCCATCTTGAAACAACCTTATCAACAGGCCGC
ACTGCAGAAATGATGTTTTATGAAAACCAATGAGGCTGCTGCCACTCCAGCAAGGAAAT
AATGCAGTTTCTGTCTTATTTAAGAAAAAGAGAAGGCTCTCTTTTCTCCCTTGTCAATTG
CCGTTCTTTTCTTACACGCAAAGATTTTTTAACTATTGCAGATTTTATCCCATTCTAC
TGCTTGATTGACCATCAACTCCATCCTATCGAGATTTATTTAAGAATGAAGAACATAATT
TTCTGCTGATGCTGTACCTCACCTTTTTCAGCAAAGAATAGTGGAGAGTAGGAAACTGT
ACTTTATCTCGGCATCCTCTTGAATGATAGTGAAGTTTCTCCAGTTGGGATGTTGTCTC
TGCCCGGTTGGACCTCCTCCCTTTGTTGAATGTGGTGTGCAGCCTCTCATCTCACACTGT
GAGTCCAGCGGCAGGGTGGTACCAGGAAAGAGGATATTTAGGCTTTGCGTGTGCTA
GCTGGGTTTCAGGCTTACCCCACTGGAAAGAACCACCATCTGCTCTAACCATGTAGACTTA
TTGCGGCCTGTTTCTCTGTTACAATAAAATTAAGTGTAGACCCAAAAAAGAAAAA
AAAAAAAAA
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Restriction Sites:

Please inquire

ACCN:

NM_002080

OTI Disclaimer:	<p>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.</p> <p>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</p>
OTI Annotation:	<p>This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.</p>
Components:	<p>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).</p>
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:	<p>NM_002080.2, NP_002071.2</p>
RefSeq Size:	<p>2473 bp</p>
RefSeq ORF:	<p>1293 bp</p>
Locus ID:	<p>2806</p>
UniProt ID:	<p>P00505</p>
Cytogenetics:	<p>16q21</p>
Domains:	<p>aminotran_1_2</p>
Protein Families:	<p>Stem cell - Pluripotency</p>
Protein Pathways:	<p>Alanine, aspartate and glutamate metabolism, Arginine and proline metabolism, Cysteine and methionine metabolism, Metabolic pathways, Phenylalanine, tyrosine and tryptophan biosynthesis, Phenylalanine metabolism, Tyrosine metabolism</p>

Gene Summary:

Glutamic-oxaloacetic transaminase is a pyridoxal phosphate-dependent enzyme which exists in cytoplasmic and inner-membrane mitochondrial forms, GOT1 and GOT2, respectively. GOT plays a role in amino acid metabolism and the urea and tricarboxylic acid cycles. The two enzymes are homodimeric and show close homology. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2013]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).