

Product datasheet for RC201757

Aspartate Aminotransferase (GOT1) (NM_002079) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aspartate Aminotransferase (GOT1) (NM_002079) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aspartate Aminotransferase
Synonyms:	AST1; ASTQTL1; cAspAT; cCAT; GIG18
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201757 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCCGGATCGCC

ATGGCACCTCCGTCAGTCTTTGCCGAGGTTCCGCAGGCCAGCCTGTCCTGGTCTTCAAGCTCACTGCCG
ACTTCAGGGAGGATCCGGACCCCGCAAGGTCAACCTGGGAGTGGGAGCATATCGCACGGATGACTGCCA
TCCCTGGGTTTTGCCAGTAGTGAAGAAAGTGGAGCAGAAGATTGCTAATGACAATAGCCTAAATCACGAG
TATCTGCCAATCCTGGGCTGGCTGAGTCCGGAGCTGTGCTTCTCGTCTTGCCCTTGGGGATGACAGCC
CAGCACTCAAGGAGAAGCGGGTAGGAGGTGTGCAATCTTTGGGGGAACAGGTGCACTTCGAATTGGAGC
TGATTTCTTAGCGGTTGGTACAATGGAACAAACAACAAGAACACACCTGTCTATGTGTCCTCACCAACC
TGGGAGAATCACAATGCTGTGTTTTCCGCTGCTGGTTTTAAAGACATTCCGTCCTATCGCTACTGGGATG
CAGAGAAGAGAGGATTGGACCTCCAGGGCTTCTGAATGATCTGGAGAATGCTCCTGAGTTCTCCATTGT
TGTCTCCACGCCGTGTCACACAACCAACTGGGATTGACCAACTCCGGAGCAGTGAAGCAGATTGCT
TCTGTGATGAAGCACCAGTTTCTGTTCCCTTCTTTGACTCAGCCTATCAGGGCTTCGCATCTGAAACC
TGGAGAGAGATGCCTGGCCATTCGCTATTTGTGTCTGAAGGCTTCGAGTCTTCTGTGCCAGTCCTT
CTCCAAGAATTCGGGCTCTACAATGAGAGAGTCGGGAATCTGACTGTGGTTGAAAAGAACCCTGAGAGC
CAGGAATTGTGGCCAGCACCTCTAACCCTGAGCTCTTTGAGGAATGGACAGGTAATGTGAAGACAAT
GGCTGACCGGATTCTGACCATGAGATCTGAACTCAGGGCAGCACTAGAAGCCCTAAAACCCTGGGACC
TGGAAACCACATCACTGATCAAATGGCATGTTGAGCTTCACTGGGTTGAACCCCAAGCAGTTGAGTATC
TGGTCAATGAAAAGCACATCTACCTGCTGCCAAGTGGTGAATCAACGTGAGTGGCTTAACCACAAAAA
TCTAGATTACGTGGCCACCTCCATCCATGAAGCAGTCACCAAAATCCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC201757 protein sequence
Red=Cloning site Green=Tags(s)

MAPPSVFAEVPQAQPVLVFKLTADFREDPPRKNLGVGAYRTDDCHPWVLPVVKKVEQKIANDNSLNHE
 YLPILGLAEFRSCASRLALGDDSPALKEKRVGGVQSLGGTGALRIGADFLARWYNGTNNKNTPVVYSSPT
 WENHNAVFSAAAGFKDIRSYRYWDAEKRGDLQGFNLNLENAPEFSIVVLHACAHNPTGIDPTPEQWKQIA
 SVMKHRFLFPFFDSAYQGFASGNLERDAWAI RYFVSEGFEFFCAQSF SKNFGLYNERVGNLTVVGKEPES
 ILQVLSQMEKIVRITWSNPPAQGARIVASTLSNP ELFEEWTGNVKTMDRILTLMRSELRARLEAL KTPGT
 WNHITDQIGMFSFTGLNPKQVEYLVNEKH IYLLPSGRINVSGLTTKNLDYVATSIHEAVTKIQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6093_d04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_002079

ORF Size: 1239 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. [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:

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_002079.3](#)

RefSeq Size: 2140 bp

RefSeq ORF: 1242 bp

Locus ID: 2805

UniProt ID: [P17174](#)

Cytogenetics: 10q24.2

Domains: aminotran_1_2

Protein Pathways: Alanine, aspartate and glutamate metabolism, Arginine and proline metabolism, Cysteine and methionine metabolism, Metabolic pathways, Phenylalanine, tyrosine and tryptophan biosynthesis, Phenylalanine metabolism, Tyrosine metabolism

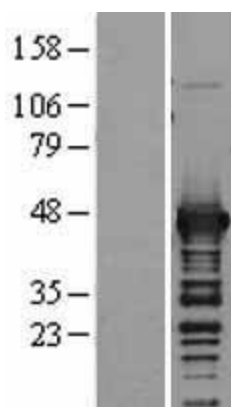
MW: 46.2 kDa

Gene Summary: Glutamic-oxaloacetic transaminase is a pyridoxal phosphate-dependent enzyme which exists in cytoplasmic and 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. [provided by RefSeq, Jul 2008]

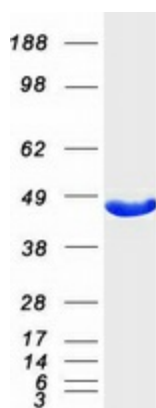
Product images:



Circular map for RC201757



Western blot validation of overexpression lysate (Cat# [LY400762]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201757 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GOT1 protein (Cat# [TP301757]). The protein was produced from HEK293T cells transfected with GOT1 cDNA clone (Cat# RC201757) using MegaTran 2.0 (Cat# [TT210002]).