

## Product datasheet for **RG229924**

### BCAT1 (NM\_001178091) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** BCAT1 (NM\_001178091) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** BCAT1  
**Synonyms:** BCATC; BCT1; ECA39; MECA39; PNAS121; PP18  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG229924 representing NM\_001178091  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAAGGATTGCAGTAACGGATGCTCCGCAGAGTGTACCGGAGAAGGAGGATCAAAGAGGTGGTGGGA  
 CTTTTAAGGCTAAAGACCTAATAGTCACACCAGCTACCATTTTAAAGGAAAAACCAGACCCCAATAATCT  
 GGTTTTTGGAACTGTGTTACGGATCATATGCTGACGGTGGAGTGGTCTCAGAGTTGGATGGGAGAAA  
 CCTCATATCAAGCCTCTCAGAACCTGTCATTGCACCCTGGCTCATCAGCTTTGCACTATGCAGTGAAG  
 TATTTGACAAAGAAGAGCTCTTAGAGTGTATTCAACAGCTTGTGAAATTGGATCAAGAATGGTCCATA  
 TTCAACATCTGCTAGTCTGTATATTCGTCCTACATTCATTGGAAGTGAAGCCTTCTTTGGAGTCAAGAAG  
 CCTACCAAGCCCTGCTCTTTGTACTCTTGAGCCAGTGGGACCTTATTTTTCAAGTGAACCTTTAATC  
 CAGTGTCCCTGTGGGCAATCCCAAGTATGAAGAGCCTGGAAAGGTGGAAGTGGGACTGCAAGATGGG  
 AGGGAATTACGGCTCATCTTTTTGCCAATGTGAAGCAGTAGATAATGGGTGTCAGCAGGTCCTGTGG  
 CTCTATGGAGAGGACCATCAGATCACTGAAGTGGGAACATGAATCTTTTTCTTTACTGGATAAATGAAG  
 ATGGAGAAGAAGAAGTGGCAACTCCTCCACTAGATGGCATCATTCTTCCAGGAGTGACAAGGCGGTGCAT  
 TCTGGACCTGGCACATCAGTGGGTGAATTTAAGGTGTCAGAGAGATACCTCACCATGGATGATGACA  
 ACAGCCCTGGAGGGGAACAGAGTGAAGAGATGTTTGGCTCTGGTACAGCCTGTGTTGTTTGCAGGTT  
 CTGATATACTGTACAAAGGCGAGACAATACACATTCCAACATATGGAGAATGGTCCTAAGCTGGCAAGCCC  
 CATCTTGAGCAAATTAAGTATCCAGTATGGAAGAGAAGAGAGCGACTGGACAATTGTGCTATCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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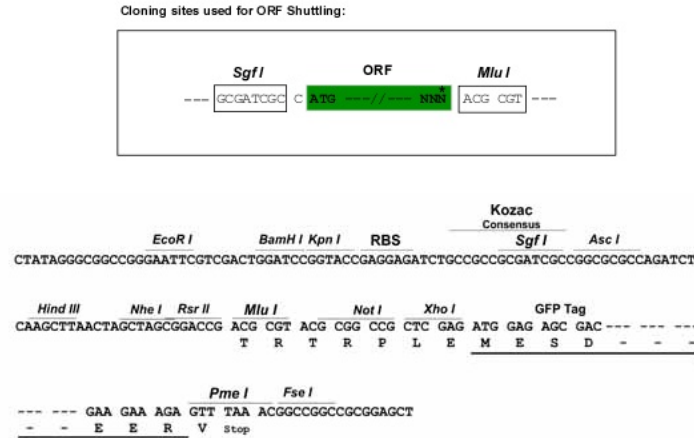
**Protein Sequence:** >RG229924 representing NM\_001178091  
 Red=Cloning site Green=Tags(s)

MKDCSNGCSAECTGEGGSKEVVGTFKAKDLIVTPATILKEKPDNNLVFGTVFTDHMLTVEWSSEFGWEK  
 PHIKPLQNLSLHPGSSALHYAVEVFDKEELLECIQQLVKLDQEWVPYSTASLYIRPTFIGTEPSLGVKK  
 PTKALLFVLLSPVGPYFSSGTFNPVSLWANPKYVRAWKGGTGDCKMGGNYGSSLFAQCEAVDNGCQQYLW  
 LYGEDHQITEVGTMMNLFYWINEDGEEELATPPLDGIILPGVTRRCILDLAHQWGEFKVSERYLTMDDLT  
 TALEGNRVREMFSGGTACVVCVSDILYKGETIHIPTMENGPKLASRILSKLTDIQYGREESDWTIVLS

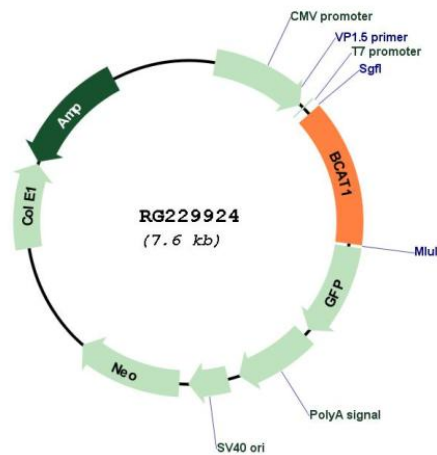
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001178091

**ORF Size:** 1047 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_001178091.2</a>
<b>RefSeq Size:</b>	9571 bp
<b>RefSeq ORF:</b>	1050 bp
<b>Locus ID:</b>	586
<b>UniProt ID:</b>	<a href="#">P54687</a>
<b>Cytogenetics:</b>	12p12.1
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Metabolic pathways, Pantothenate and CoA biosynthesis, Valine, leucine and isoleucine biosynthesis, Valine, leucine and isoleucine degradation
<b>Gene Summary:</b>	This gene encodes the cytosolic form of the enzyme branched-chain amino acid transaminase. This enzyme catalyzes the reversible transamination of branched-chain alpha-keto acids to branched-chain L-amino acids essential for cell growth. Two different clinical disorders have been attributed to a defect of branched-chain amino acid transamination: hypervalinemia and hyperleucine-isoleucinemia. As there is also a gene encoding a mitochondrial form of this enzyme, mutations in either gene may contribute to these disorders. Alternatively spliced transcript variants have been described. [provided by RefSeq, May 2010]