

## Product datasheet for **RC228234**

### BCAT2 (NM\_001164773) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** BCAT2 (NM\_001164773) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** BCAT2  
**Synonyms:** BCAM; BCATM; BCT2; HVLI; PP18  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC228234 representing NM\_001164773  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCCGAGCCGCTCTGGGGCAGCTGTTTGAGGGCATGAAGGCGTTCAAAGGCAAAGACCAGCAGGTGC  
 GCCTCTCCGCCCTGGCTCAACATGGACCGGATGCTGCGCTCAGCCATGCGCCTGTGCCTGCCGAGTTT  
 CGACAAGCTGGAGTTGCTGGAGTGCATCCGCCGCTCATCGAAGTGACAAGGACTGGGTCCCCGATGCC  
 GCCGGCACCAGCCTCTATGTGCGCCTGTGCTCATTGGGAACGAGCCCTCGTGGGTGTCAGCCAGCCCA  
 CGCGCGCTCCTGTTTCGTCATTCTCTGCCAGTGGGTGCCTACTCCCTGGAGGCTCCGTGACCCCGGT  
 CTCCTCCTGGCCGACCCAGCCTTCATCCGGGCTGGGTGGGCGGGTGGCAACTACAAGTTAGGTGGG  
 AATTATGGGCCACCGTGTAGTGCAACAGGAGGCACTCAAGCGGGCTGTGAACAGTCCCTCTGGCTGT  
 ATGGGCCGACCCAGCTCACCAGGTGGGAACCATGAACATCTTTGTCTACTGGACCCACGAAGTGG  
 GGTGCTGGAGCTGGTGACGCCCCGCTGAATGGTGTATCCTGCCTGGAGTGGTCAAGACAGAGTCTACTG  
 GACATGGCTCAGACCTGGGTGAGTCCGGGTGGTGGAGCGCACGATCACCATGAAGCAGTTGCTGCGGG  
 CCCTGGAGGAGGGCCGCTGCGGGAAGTCTTTGGCTCGGCACCCTTCCAGGTCTGCCAGTGCACCC  
 AATCCTGTACAAAGACAGGAACCTCCACATCCACCATGGAAAATGGGCTGAGCTGATCCTCCGCTTC  
 CAGAAGGAGCTGAAGGAGATCCAGTACGGAATCAGAGCCACGAGTGGATGTTCCCGGTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC228234 representing NM\_001164773  
Red=Cloning site Green=Tags(s)

MAAAALGQLFEGMKAFKGDQVRLFRPWLNMDRMLRSAMRLCLPSFDKLELLEECIRRLIEVDKDWVDA  
 AGTSLYVRPVLIGNEPSLGVSQPTRALLFVILCPVGAYFPGGSVTPVSVLLADPAFIRAWVGGVGNKLG  
 NYGPTVLVQQEALKRGCEQVLWL YGPDHQLTEVGTMNIFVYWTHEDGVLELVTPPLNGVILPGVVRQSL  
 DMAQTWGEFRVVERTITMKQLLRAL EEEGRVREVF GSGTACQVCPVHRILYKDRNLHIPTMENGPELILRF  
 QKELKEIQYGIRAHWMPFV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8050\\_f06.zip](https://cdn.origene.com/chromatograms/mk8050_f06.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001164773

**ORF Size:** 900 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\\_001164773.2](#)

**RefSeq ORF:** 903 bp

**Locus ID:** 587

**UniProt ID:** [O15382](#)

**Cytogenetics:** 19q13.33

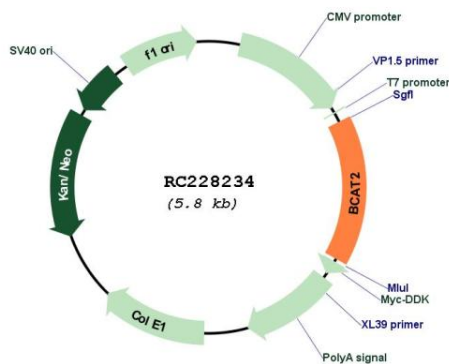
**Protein Families:** Druggable Genome

**Protein Pathways:** Metabolic pathways, Pantothenate and CoA biosynthesis, Valine, leucine and isoleucine biosynthesis, Valine, leucine and isoleucine degradation

**MW:** 33.6 kDa

**Gene Summary:** This gene encodes a branched chain aminotransferase found in mitochondria. The encoded protein forms a dimer that catalyzes the first step in the production of the branched chain amino acids leucine, isoleucine, and valine. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2009]

## Product images:



Circular map for RC228234