

Product datasheet for RC200625

BCAT2 (NM_001190) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | BCAT2 (NM_001190) 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: | >RC200625 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCGAGCCGCTCTGGGCAGATCTGGGCACGAAAGCTTCTCTGTCCCTGGCTTCTGTGTGGTCCAGAAGATATGCCTCTCCAGTTTCAAGGCTGCAGACCTGCAGCTGAAATGACACAGAAGCCTCATAA
GAAGCTGGCCCCGGCGAGCCCCGGTGTGGGAAGACATTTACCGACCACATGCTGATGGTGAATGGAATGACAAGGGCTGGGGCCAGCCCCGAATCCAGCCCTCCAGAACCTCACGCTGCACCCAGCCTCTCCA
GCCTCCACTACTCCCTGCAGCTGTTTGAGGGCATGAAGGCGTTCAAAGGCAAAGACCAGCAGGTGCGCCT
CTCCGCCCTGGCTCAACATGGACCGGATGCTGCGCTCAGCCATGCGCCTGTGCCTGCCGAGTTTCGAC
AAGCTGGAGTTGCTGGAGTGCATCCGCCGGCTCATCGAAGTGGACAAGGACTGGTCCCCGATGCCGCCG
GCACCAGCCTCTATGTGCGGCCTGTGCTCATTGGGAACGAGCCCTCGTGGGTGTGAGCCAGCCACGCG
CGCGCTCTGTTCGTCATTCTCTGCCAGTGGGTGCCTACTTCCCTGGAGGCTCCGTGACCCCGTCTCC
CTCCTGGCCGACCCAGCCTTCAATCCGGGCTGGTGGCGGGTGGCAACTACAAGTTAGTGGGAATT
ATGGGCCACCGTGTAGTGCAACAGGAGGCACTCAAGCGGGCTGTGAACAGGTCTCTGGCTGTATGG
GCCCGACCACAGCTCACCGAGGTGGGAACCATGAACATCTTTGTCTACTGGACCCAGGAATGGGGT
CTGGAGCTGGTACGCCCCGCTGAATGGTGTATCCTGCCTGGAGTGGTGCAGACAGAGTCACTGGACA
TGGCTCAGACCTGGGGTGAATCCGGGTGGTGGAGCGCACGATCACCATGAAGCAGTTGCTGCGGGCCT
GGAGGAGGGCCGCTGCGGGAAGTCTTTGGCTCGGGCACCGCTTGCCAGGTCTGCCAGTGCACCGAATC
CTGTACAAAGACAGGAACCTCCACATTCCACCATGAAAATGGGCTGAGCTGATCCTCCGCTCCAGA
AGGAGCTGAAGGAGATCCAGTACGGAATCAGAGCCACGAGTGGATGTTCCCGGTG

ACGGTACGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC200625 protein sequence
Red=Cloning site Green=Tags(s)

MAAAALGQIWARKLLSVPWLLCGPRRYASSSFKAADLQLEMTQKPHKKPGPEPLVFGKTFDHLMLMVEW
 NDKGWGQPRIQPFQNLTLHPASSSLHYSLQLFEGMKAFKGDQQVRLFRPWLNMDRMLRSAMRLCLPSFD
 KLELLELCIRRLIEVDKDWVDAAGTSLYVRPVLIGNESLGVSQPTRALLFVILCPVGAYFPGGSVTPVS
 LLADPAFIRAWVGGVGNKLGNYGPTVLVQQEALKRGCEQVLWLYGPDHQLTEVGTMNIFVYWTHEDGV
 LELVTPPLNGVILPGVVRQSLLDMAQTWGEFRVVERTITMKQLLRALEEGRVREVFVSGTACQVCPVHRI
 LYKDRNLHIPTMENGPELILRFQKELKEIQYGIRAHWEMFPV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6082_c01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_001190

ORF Size: 1176 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001190.4](#)

RefSeq Size: 1616 bp

RefSeq ORF: 1179 bp

Locus ID: 587

UniProt ID: [O15382](#)

Cytogenetics: 19q13.33

Domains: aminotran_4

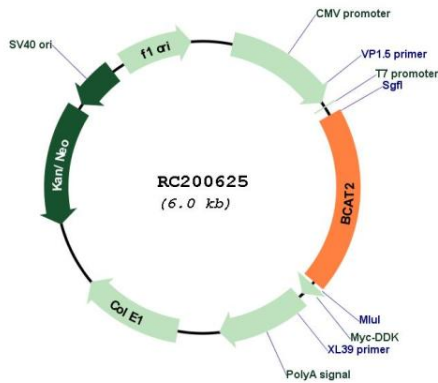
Protein Families: Druggable Genome

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

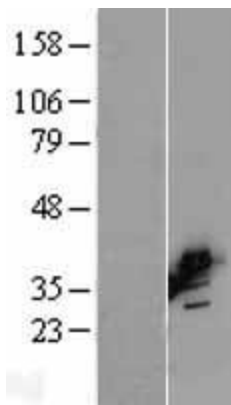
MW: 44.3 kDa

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]

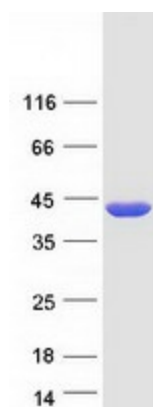
Product images:



Circular map for RC200625



Western blot validation of overexpression lysate (Cat# [LY400477]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200625 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified BCAT2 protein (Cat# [TP300625]). The protein was produced from HEK293T cells transfected with BCAT2 cDNA clone (Cat# RC200625) using MegaTran 2.0 (Cat# [TT210002]).