

Product datasheet for **RC228900**

BCKDHA (NM_001164783) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BCKDHA (NM_001164783) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	BCKDHA
Synonyms:	BCKDE1A; MSU; MSUD1; OVD1A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC228900 representing NM_001164783
 Red=Cloning site Blue=ORF Green=Tags(s)

CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCCGGCGC
 GCCC

ATGGCGGTAGCGATCGCTGCAGCGAGGGTCTGGCGGCTAAACCGTGGTTTGAGCCAGGCTGCCCTCCTGC
 TGCTGCGGCAGCCTGGGGCTCGGGGACTGGCTAGATCTACCCCCCAGGCAGCAGCAGCAGTTTTCATC
 TCTGGATGACAAGCCCCAGTTCCAGGGGCTCGGCGGAGTTTATAGATAAGTTGGAATTCATCCAGCCC
 AACGTCATCTCTGGAATCCCCATCTACCGCGTCATGGACCGGCAAGGCCAGATCATCAACCCAGCGAGG
 ACCCCACCTGCCAAGGAGAAGGTGCTGAAGCTCTACAAGAGCATGACACTGCTTAACACCATGGACCG
 CATCCTCTATGAGTCTCAGCGGCAGGGCCGATCTCCTTCTACATGACCAACTATGGTGAGGAGGGCAGC
 CACGTGGGAGTGCCGCCGCCCTGGACAACACGGACCTGGTGTGGCCAGTACCGGGAGGCAGGTGTGC
 TGATGTATCGGGACTACCCCTGGAATATTATGGCCAGTGCTATGGCAACATCAGTGACTTGGGCAA
 GGGGCGCCAGATGCTGTCCACTACGGCTGCAAGGAACGCCACTTCGTCACTATCTCCTCCTCCACTGGCC
 ACGCAGATCCCTCAGGCGGTGGGGGCGGCGTACGCAGCCAAGCGGGCCAATGCCAACAGGGTCGTATCT
 GTTACTTCGGCGAGGGGGCAGCCAGTGAGGGGGACGCCCATGCCGGCTTCAACTTCGCTGCCACACTTGA
 GTGCCCCATCATCTTCTTCTGCCGAACAATGGCTACGCCATCTCCACGCCCACCTCTGAGCAGTATCGC
 GGCATGGCATTGCACGAGGCCCGGGTATGGCATCATGTCAATCCGCGTGGATGGTAATGATGTGTTTG
 CCGTATACAACGCCACAAAGGAGGCCGACGGCGGGCTGTGGCAGAGAACCAGCCCTTCTCATCGAGGC
 CATGACCTACAGGATCGGGCACCACAGCACCAGTGACGACAGTTACGCGTACCGCTCGGTGGATGAGGTC
 AATTACTGGGATAAACAGGACCACCCCATCTCCCGGCTGCGGCACTATCTGCTGAGCCAAGGCTGGTGGG
 ATGAGGAGCAGGAGAAGGCTGGAGGAAGCAGTCCCGCAGGAAGGTGATGGAGGCCTTGGAGCAGCCGA
 GCGGAAGCCCAAACCCCAACCCCACTACTCTTCTCAGACGTGTATCAGGAGATGCCCGCCAGCTCCGC
 AAGCAGCAGGAGTCTCTGCCCCGCCACCTGCAGACCTACGGGAGCACTACCCACTGGATCACTTCGATA
 AG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC228900 representing NM_001164783
 Red=Cloning site Green=Tags(s)

MAVAIAAARVWRLNRGLSQAALLLRQPGARGLARSHPPRQQQFSSLDKQPFGASAEFIDKLEFIQP
 NVISGIIYRVMDRQGGIINPSEDPHLPEKVLKLYKSMTLLNTMDRILYESQRQGRISFYMTNYGEEGT
 HVGSAALDNTDLVFGQYREAGVLMYRDYPLELFMAQCYGNISDLGKGRQMPVHYGCKERHFVTISSPLA
 TQIPQAVGAAYAANKRANANRVVICYFGEAASEGDAHAGFNFAATLECPPIFFCRNNGYAISTPTSEQYR
 GDGIARGPGYGIMSIRVDGNDVFAVYNATKEARRRAVAENQPFLEAMTYRIGHHSTSDSSAYRSVDEV
 NYWDKQDHPISRLRHYLLSQGWWDDEEQEKAWRKQSRKVMFAFEQAERKPKPNPNTLLFSDVYQEMPAQLR
 KQEQESLARHLQTYGEHYPLDHFDDK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

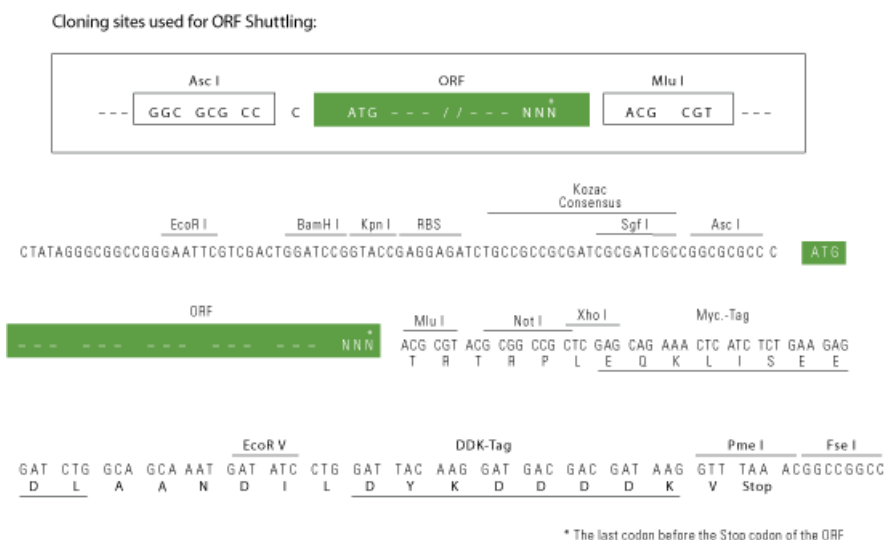
Chromatograms:

https://cdn.origene.com/chromatograms/mk8100_e04.zip

Restriction Sites:

Ascl-MluI

Cloning Scheme:



ACCN: NM_001164783

ORF Size: 1332 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_001164783.2](#)

RefSeq Size: 1788 bp

RefSeq ORF: 1335 bp

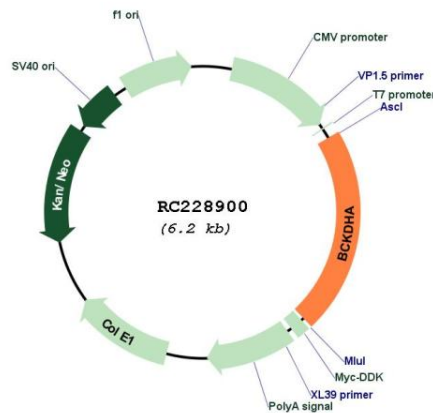
Locus ID: 593

UniProt ID: P12694

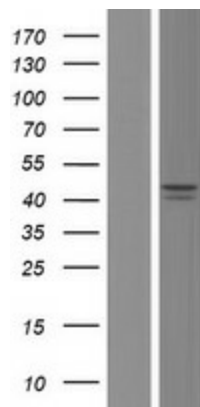
Cytogenetics: 19q13.2

Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Valine, leucine and isoleucine degradation
MW:	50.4 kDa
Gene Summary:	The branched-chain alpha-keto acid (BCAA) dehydrogenase (BCKD) complex is an inner mitochondrial enzyme complex that catalyzes the second major step in the catabolism of the branched-chain amino acids leucine, isoleucine, and valine. The BCKD complex consists of three catalytic components: a heterotetrameric (alpha2-beta2) branched-chain alpha-keto acid decarboxylase (E1), a dihydrolipoyl transacylase (E2), and a dihydrolipoamide dehydrogenase (E3). This gene encodes the alpha subunit of the decarboxylase (E1) component. Mutations in this gene result in maple syrup urine disease, type IA. Multiple transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Sep 2009]

Product images:



Circular map for RC228900



Western blot validation of overexpression lysate (Cat# [LY431928]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC228900 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).