

## Product datasheet for **SC127427**

### **BCKDHB (NM\_183050) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	BCKDHB (NM_183050) Human Untagged Clone
Tag:	Tag Free
Symbol:	BCKDHB
Synonyms:	BCKDE1B; BCKDH E1-beta; E1B
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_183050, the custom clone sequence may differ by one or more nucleotides

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ATGGCGTTGTAGCGCGGCTGCCGGCTGGCTACTCAGGCTCAGGGCGGCAGGGGCTGAGGGCACTGGC
GTCGGCTTCTGGCGCGGGGCTGGCGCGGGGCTTTTTGCACCCCGCCGCGACTGTCGAGGATGCGGCCCA
GAGGCGGCAGGTGGCTCATTTTACTTTCCAGCCAGATCCGGAGCCCCGGGAGTACGGGCAAACCTCAGAAA
ATGAATCTTTCCAGTCTGTAACAAGTGCCTTGGATAACTCATTGGCCAAAGATCCTACTGCAGTAATAT
TTGGTGAAGATGTTGCCTTTGGTGGAGTCTTTAGATGCACTGTTGGCTTGCAGACAAATATGGAAAAGA
TAGAGTTTTTAATACCCATTGTGTGAACAAGGAATTGTTGGATTGGAATCGGAATTGCGGTCCTGGA
GCTACTGCCATTGCGGAAATTCAGTTTGCAGATTATTTTTCCCTGCATTGATCAGATTGTTAATGAAG
CTGCCAAGTATCGCTATCGCTCTGGGGATCTTTTTAACTGTGGAAGCCTCACTATCCGGTCCCCTTGGGG
CTGTGTTGGTCATGGGGCTCTCTATCATTCTCAGAGTCCTGAAGCATTTTTTGCCATTGCCAGGAATC
AAGGTGTTATACCCAGAAGCCCTTTCCAGGCCAAAGGACTTCTTTTGCATGCATAGAGGATAAAAATC
CTTGATATTTTTTGAACCTAAAATACTTTACAGGGCAGCAGCGGAAGAAGTCCCTATAGAACCATACAA
CATCCCACTGTCCAGGCCGAAGTCATACAGGAAGGGAGTGATGTTACTCTAGTTGCCTGGGGCACTCAG
GTTTCATGTGATCCGAGAGGTAGCTTCCATGGCAAAAAGAAAGCTTGGAGTGTCTGTGAAGTCATTGATC
TGAGGACTATAATACCTTGGGATGTGGACACAATTTGTAAGTCTGTGATCAAAACAGGGCGACTGCTAAT
CAGTCACGAGGCTCCCTTGACAGGCGGCTTTGCATCGGAAATCAGCTCTACAGTTCAGGAGGAATGTTTC
TTGAACCTAGAGGCTCCTATATCAAGAGTATGTGGTTATGACACACCATTTCCTCACATTTTTGAACCAT
TCTACATCCAGACAAATGGAAGTGTATGATGCCCTTCGAAAAATGATCAACTATTGA
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<b>5' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 5' read for NM_183050 unedited</p> <p>GACTCACTACTGAGGCGGCCGCAATTCGGCACGAGGGGTGAGCGGGGATGGCGGTTGTA  GCGGGCGCTGCCGGCTGGCTACTCANGCTCAGGGCGGCAGGGGCTGAGGGGCACTGGCGT  CGGCTTCTGGCGCGGGGCTGGCGCGGGGCTTTTTGCACCCCGCCGACTGTGAGGAT  GCGGCCAGAGGGCGGCAGGTGGCTCATTTTACTTTCCAGCCAGATCCGGAGCCCCGGGAG  TACGGGCAAACACTCAGAAAATGAATCTTTTCCAGTCTGTAACAAGTGCCTTGGATAACTCA  TTGGCCAAAGATCCTACTGCAGTAATATTTGGTGAAGATGTTGCCTTTGGTGGAGTCTTT  AGATGCACGTGTTGGCTTGCAGACAAATATGGAAGATAGAGTTTTACAATACCCCAT  GTGTGAACAAGGAATTGTTGGATTTGGAATCGAATTGCGGTCACTGGAGCTACTGCCAT  TGCGGAAATTCAGTTTGCAGATTATTTTTCCCTGCATTTGATCAGATTGTTAATGAAGC  TGCCAAGTATCGCTATCGCTCTGGGGATCTTTTAACTGTGGAAGCCTCACTATCNCGTC  CCCTTGNGGCTGTGTTGGTCATGGGGCTCTCTATCATTCTCAGAGTCTGAAGCATTNT  NTGCCATTGCCAGGAATCAAGGTGGTATACCCAGAAGCCCTTTCCAGCCANAGGAC  TTCTTTTGTGTCATAGAGGATAAAAAATCCCTGTATATTTTTGAACTANNATACTTA  CAGGGCAGCAGCGGAAGAAGTCCCTATAGAACATANCACTNCCACTGTCCCAGCCCGAG  TCATACAGGAAAGGAGTTGATGTACTCTAGTTGCCTGGGCACTCAGGTNCAATGTGATCC  GAGAGGTACCTCCATGGCAAAGAAAGCTTGATGTCTTGGGAAGTCATGATCTGAGACTA  TATACCTTGGATGG</p>
<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' read for NM_183050 unedited</p> <p>TGTACGCGGCCGCATCTATAGTCGGTTTTTTTTTTTTTTTTTTTGGACAATTTGATTTTACT  TTATTGAATACTATCACACATAAATTTACAGATGTAATTAACAGAATTTATAAGAT  TACCATGTGGAATATTTTCAAAGTTAATCTGAAACTCTTAATGAAAATCATCAATACAT  GTGTGTTACAATAACAATAATAGAATGTAGAACTTTTCAGCCAATATCATGATGGTTCATT  TAATAAAAACTCTTTTTCAAAAAGAGGTAAGTCGGAGGAAATATAAAAAAAATTCAGA  AAAAATATTTCCATATCTAGTCATAATCTTCCAGCTTTTCTGTAAAAATAATTATAGACT  TTCTCAATTGCATACATGACTATTTTCTTAAATACCATATTTAACTTTTAGCATATTGGA  GTTGTTTTTCTTTATCGTATTTTACAGCATAAGTTTAAATGTTTTCTTATGTTTCAAAA  GGAATACATAATCTAAATTTAAACCACATCTGAATATTACTTTAAAAATAGCAACGAGG  CACGTGGCCACCATCACTACCTTGGCTCTTTATTACGGCTGGTCCACGGAAGGGAACCAC  ATGGACAACAAAAGTGATGGAGTCTCTAACCAGTTCTAAGTGTGATTTATTGTAGATGC  CAGTTGCTTTCACAGACATTAAGAAGACATCAGATATATGGCATCTACCCGGTATGTCT  GAGAGATACACGCATCTGTGGGCTAATGGTCTAACTTCATCTATAACAATATTNCTAG  ACTAGAACAGACAGATATGTAGGGATTATGGTAGCACAGTGACTATGATGGATAGTAAAC  TCTCTATTCGACAATGTAAAGGCGTTCCTCTGATTTTCATGAGCTAGATTACTACCATAC  ACAAAGTCAGATTCTAGCTTNTGATCTTAAAAGAGAGAAGGGCTTAATAAGAGTGATT  GCTTTGAAAACATATCTCAAAGAATACTATCATTTGAAAACAAAT</p>
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_183050
<b>Insert Size:</b>	4000 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<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).

**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\\_183050.1](#), [NP\\_898871.1](#)

**RefSeq Size:** 3703 bp

**RefSeq ORF:** 1179 bp

**Locus ID:** 594

**UniProt ID:** [P21953](#)

**Cytogenetics:** 6q14.1

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

**Gene Summary:** This gene encodes the E1 beta subunit of branched-chain keto acid dehydrogenase, which is a multienzyme complex associated with the inner membrane of mitochondria. This enzyme complex functions in the catabolism of branched-chain amino acids. Mutations in this gene have been associated with maple syrup urine disease (MSUD), type 1B, a disease characterized by a maple syrup odor to the urine in addition to mental and physical retardation and feeding problems. Alternative splicing at this locus results in multiple transcript variants. [provided by RefSeq, Jan 2016]

Transcript Variant: This variant (1) encodes isoform 1. Both variants 1 and 2 encode the same protein (isoform 1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The extent of this transcript is supported by transcript alignments.