

Product datasheet for **RG218846**

BCKDHB (NM_000056) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BCKDHB (NM_000056) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	BCKDHB
Synonyms:	BCKDE1B; BCKDH E1-beta; E1B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG218846 representing NM_000056 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGGCGGTTGTAGCGGGCTGCCGGCTGGCTACTCAGGCTCAGGGCGGCAGGGGCTGAGGGGCACTGGC
GTCGGCTTCCTGGCGGGGCTGGCGGGGCTTTTTGCACCCCGCCGACTGTCGAGGATGCGGCCCA
GAGGGCGCAGGTGGCTATTTACTTTCCAGCCAGATCCGGAGCCCCGGGAGTACGGGCAAACCTCAGAAA
ATGAATCTTTCCAGTCTGTAACAAGTGCCTTGGATAACTCATTGGCCAAAGATCCTACTGCAGTAATAT
TTGGTGAAGATGTTGCCTTTGGTGGAGTCTTTAGATGCACTGTTGGCTTGCAGACAAATATGGAAAAGA
TAGAGTTTTTAATACCCATTGTGTGAACAAGGAATTGTTGGATTGGAATCGGAATTGCGGTCACTGGA
GCTACTGCCATTGCGGAAATTCAGTTTGCAGATTATTTTTCCCTGCATTTGATCAGATTGTTAATGAAG
CTGCCAAGTATCGCTATCGCTCTGGGATCTTTTTAACTGTGGAAGCCTCACTATCCGGTCCCCTTGGGG
CTGTGTTGGTCATGGGGCTCTCTATCATTCTCAGAGTCTGAAGCATTTTTTGCCATTGCCAGGAATC
AAGGTGTTATACCCAGAAGCCCTTTCCAGGCCAAAGGACTTCTTTGTCATGCATAGAGGATAAAAATC
CTTGATATTTTTGAACCTAAAATACTTTACAGGGCAGCAGCGGAAGAAGTCCCTATAGAACCATACAA
CATCCCAGTGTCCAGGCCGAAGTCATACAGGAAGGGAGTGATGTTACTCTAGTTGCCTGGGGCACTCAG
GTTGATGTGATCCGAGAGGTAGCTTCCATGGCAAAGAAAAGCTTGGAGTGTCTTGTGAAGTCATTGATC
TGAGGACTATAATACCTTGGGATGTGGACACAATTTGTAAGTCTGTGATCAAACAGGGCGACTGCTAAT
CAGTACAGAGGCTCCCTTGACAGCGGCTTTGCATCGGAAATCAGCTCTACAGTTCAGGAGGAATGTTTC
TTGAACCTAGAGGCTCCTATATCAAGAGTATGTGGTTATGACACACCATTTCCTCACATTTTTGAACCAT
TCTACATCCCAGACAAATGGAAGTGTATGATGCCCTTCGAAAAATGATCAACTAT

ACGGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG218846 representing NM_000056
 Red=Cloning site Green=Tags(s)

MAVVAAAAGWLLRLRAAGAEGHWRLPGAGLARGFLHPAATVEDAAQRRQVAHFTFQPDPEPREYGGTQK
 MNLFQSVTSALDNSLAKDPTAVIFGEDVAFGGVFRCTVGLRDKYKDRVNTPLCEQGIVGFGIGIAVTG
 ATAIAEIQFADYIFPAFDQIVNEAAKYRYRSGDLFNCGSLTIRSPWGCVGHGALYHSQSPEAFFAHCPGI
 KVVIPRSPFQAKGLLLSCIEDKNPCIFFEPKILYRAAAEEVPIEPYNIPLSQAIEVIQEGSDVTLVAWGTQ
 VHVIREVASMAGEKLGVSCEVIDLRTIIPWDVDTICKSVIKTGRLLISHEAPLTGGFASEISSTVQECCF
 LNLEAPISRVCGYDTPFPHFIFEPFYIPDKWKCYDALRKMINY

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000056

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.

RefSeq: [NM_000056.4](#)

RefSeq Size: 1552 bp

RefSeq ORF: 1179 bp

Locus ID: 594

UniProt ID: [P21953](#)

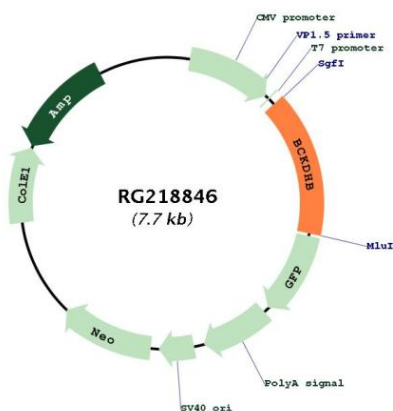
Cytogenetics: 6q14.1

Domains: transket_pyr, transketolase_C

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]

Product images:



Circular map for RG218846