

Product datasheet for RC229903

Lactate Dehydrogenase B (LDHB) (NM_001174097) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lactate Dehydrogenase B (LDHB) (NM_001174097) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Lactate Dehydrogenase B
Synonyms:	HEL-S-281; LDH-B; LDH-H; LDHBD; TRG-5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC229903 representing NM_001174097 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCAACTCTTAAGGAAAACTCATTGCACCAGTTGCGGAAGAAGAGGCAACAGTTCCAAACAATAAGA
TCACTGTAGTGGGTGTTGGACAAGTTGGTATGGCGTGTGCTATCAGCATTCTGGGAAAGTCTCTGGCTGA
TGAAGTGGCTCTTGTGGATGTTTTGGAAGATAAGCTTAAAGGAGAAATGATGGATCTGCAGCATGGGAGC
TTATTTCTTCAGACACCTAAAATTGTGGCAGATAAAGATTATTCTGTGACCGCCAATTCTAAGATTGTAG
TGGTAAGTGCAGGAGTCCGTCAGCAAGAAGGGGAGAGTCCGCTCAATCTGGTGCAGAGAAATGTTAATGT
CTTCAAATTCATTATTCCTCAGATCGTCAAGTACAGTCCCTGATTGCATCATAATTGTGGTTTCCAACCCA
GTGGACATTCTTACGTATGTTACCTGGAACCTAAGTGGATTACCCAAACACCGCGTGATTGGAAGTGGAT
GTAATCTGGATTCTGCTAGATTTGCTACCTTATGGCTGAAAACTTGGCATTTCATCCAGCAGCTGCCA
TGGATGGATTTTGGGGAAACATGGCGACTCAAGTGTGGCTGTGTGGAGTGGTGTGAATGTGGCAGGTGTT
TCTCTCCAGGAATTGAATCCAGAAATGGGAACTGACAATGATAGTGAATTTGGAAGGAAGTGCATAAGA
TGGTGGTTGAAAGTGCCTATGAAGTCATCAAGCTAAAAGGATATACCAACTGGGCTATTGGATTAAGTGT
GGCTGATCTTATTGAATCCATGTTGAAAACTATCCAGGATTCATCCCGTGTCAACAATGGTAAAGGGG
ATGTATGGCATTGAGAATGAAGTCTTCTGAGCCTTCCATGTATCCTCAATGCCCGGGGATTAACCAGCG
TTATCAACCAGAAGCTAAAGGATGATGAGTTGCTCAGCTCAAGAAAAGTGCAGATACCCGTGGGACAT
CCAGAAGGACCTAAAAGACCTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC229903 representing NM_001174097
 Red=Cloning site Green=Tags(s)

MATLKEKLIAPVAEEEEATVPNNKITVVGVGQVGMACAISILGKSLADELALVDVLEDKLGEMMDLQHGSLFLQTPKIVADKDYSVTANSKIVVVTAGVRQEGESRLNLVQRNVNVFKFIIPQIVKYSPTDCIIIVVSNPVDILTYVTWKL SGLPKHRVIGSGCNLDSARFRYLMAEKLGIHPSSCHGWILGEHGDSSVAVWSGVNVAGVSLQELNPEMGTDNDSENWKEVHKM VVESAYEVIKLKGYTNWAIGLSVADLIESMLKNLSRIHPVSTMVKGMYGIENEVFLSLPCILNARGLTSVINQKLKDDEVAQLKKSADTLWDIQKDLKDL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8052_h06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001174097

ORF Size: 1002 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_001174097.2](#), [NP_001167568.1](#)

RefSeq ORF: 1005 bp

Locus ID: 3945

UniProt ID: [P07195](#)

Cytogenetics: 12p12.1

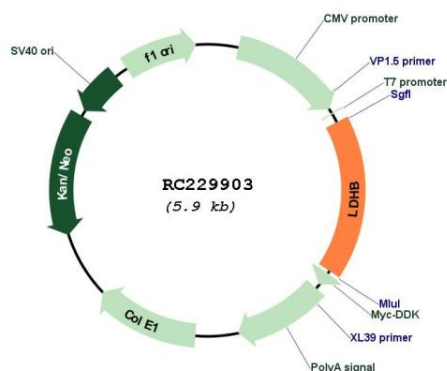
Protein Families: Druggable Genome

Protein Pathways: Cysteine and methionine metabolism, Glycolysis / Gluconeogenesis, Metabolic pathways, Propanoate metabolism, Pyruvate metabolism

MW: 37.1 kDa

Gene Summary: This gene encodes the B subunit of lactate dehydrogenase enzyme, which catalyzes the interconversion of pyruvate and lactate with concomitant interconversion of NADH and NAD⁺ in a post-glycolysis process. Alternatively spliced transcript variants have been found for this gene. Recent studies have shown that a C-terminally extended isoform is produced by use of an alternative in-frame translation termination codon via a stop codon readthrough mechanism, and that this isoform is localized in the peroxisomes. Mutations in this gene are associated with lactate dehydrogenase B deficiency. Pseudogenes have been identified on chromosomes X, 5 and 13. [provided by RefSeq, Feb 2016]

Product images:



Circular map for RC229903