

Product datasheet for **SC319772**

Lactate Dehydrogenase B (LDHB) (NM_002300) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Lactate Dehydrogenase B (LDHB) (NM_002300) Human Untagged Clone
Tag: Tag Free
Symbol: Lactate Dehydrogenase B
Synonyms: HEL-S-281; LDH-B; LDH-H; LDHBD; TRG-5
Mammalian Cell Selection: None
Vector: [pCMV6-XL5](#)
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_002300.3
 GGGGCTTGCAGAGCCGGCGCCGGAGGAGACGCACGCAGCTGACTTTGTCTTCTCCGCACG
 ACTGTTACAGAGGTCTCCAGAGCCTTCTCTCCTGTGCAAAATGGCAACTCTTAAGGAA
 AAACCTATTGCACCAGTTGCGGAAGAAGAGGCAACAGTTCCAAACAATAAGATCACTGTA
 GTGGGTGTTGGACAAGTTGGTATGGCGTGTGCTATCAGCATTCTGGGAAAGTCTCTGGCT
 GATGAACTTGCTCTTGTGGATGTTTTGGAAGATAAGCTTAAAGGAGAAATGATGGATCTG
 CAGCATGGGAGCTTATTTCTCAGACACCTAAAATTGTGGCAGATAAAGATTATTCTGTG
 ACCGCCAATTCTAAGATTGTAGTGGTAAGTGCAGGAGTCCGTGAGCAAGAAGGGGAGAGT
 CGGCTCAATCTGGTGCAGAGAAATGTTAATGTCTTCAAATTCATTATTCCTCAGATCGTC
 AAGTACAGTCCTGATTGCATCATAATTGTGGTTTCCAACCCAGTGGACATTCTTACGTAT
 GTTACCTGGAAACTAAGTGGATTACCCAAACACCCGCTGATTGGAAGTGGATGTAATCTG
 GATTCTGCTAGATTTGCTACCTTATGGCTGAAAAACTTGGCATTTCATCCAGCAGCTGC
 CATGGATGGATTTTGGGGAAACATGGCGACTCAAGTGTGGCTGTGTGGAGTGGTGTGAAT
 GTGGCAGGTGTTTCTCTCCAGGAATTGAATCCAGAAATGGGAACTGACAAATGATAGTGAA
 AATTGGAAGGAAGTGCATAAGATGGTGGTTGAAAGTGCCTATGAAGTCATCAAGCTAAAA
 GGATATACCAACTGGGCTATTGGATTAAGTGTGGCTGATCTTATTGAATCCATGTTGAAA
 AATCTATCCAGGATTCATCCCGTGTCAACAATGGTAAAGGGGATGATGGCATTGAGAAT
 GAAGTCTTCTGAGCCTTCCATGATCCTCAATGCCCGGGGATTAACCAGCGTTATCAAC
 CAGAAGCTAAAGGATGATGAGGTTGCTCAGCTCAAGAAAAGTGCAGATACCCTGTGGGAC
 ATCCAGAAGGACCTAAAAGACCTGTGACTAGTGAGCTCTAGGCTGTAGAAATTTAAAAAC
 TACAATGTGATTAAGTTCGAGCCTTTAGTTTTTCATCCATGTACATGGATCACAGTTTGCTT
 TGATCTTCTTCAATATGTGAATTTGGGCTCACAGAATCAAAGCCTATGCTTGGTTAATG
 CTTGCAATCTGAGCTCTTGAACAAATAAAATTAAGTATTGTAGTGCAGAAAAAAAAAAAAA
 AAAAAAAAAAAAAAAAAA

Restriction Sites: Please inquire



[View online >](#)

ACCN:	NM_002300
Insert Size:	1005 bp
OTI Disclaimer:	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).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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:	<ol style="list-style-type: none"> 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:	<u>NM_002300.3</u> , <u>NP_002291.1</u>
RefSeq Size:	1336 bp
RefSeq ORF:	1005 bp
Locus ID:	3945
UniProt ID:	<u>P07195</u>
Cytogenetics:	12p12.1
Domains:	ldh
Protein Families:	Druggable Genome
Protein Pathways:	Cysteine and methionine metabolism, Glycolysis / Gluconeogenesis, Metabolic pathways, Propanoate metabolism, Pyruvate metabolism

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]

Transcript Variant: This variant (1) encodes two isoforms, which result from the use of alternative in-frame translation termination codons. The shorter isoform (LDHB) results from translation termination at the upstream UGA stop codon, while the longer isoform (LDHBx) results from UGA stop codon readthrough to the downstream UAG termination codon. This RefSeq represents the shorter isoform (LDHB), which is localized in the cytosol. Variants 1 and 2 encode the same isoform.