PKLR cDNA Clone – Pyruvate Kinase, Liver and RBC (Human)

PRODUCT OVERVIEW

Product Name	PKLR, cDNA Clone
Full Product Name	PKLR cDNA Clone
Product Gene Name	PKLR cdna clone
Sequence	atgtcgatcc aggagaacat atcatccctg cagcttcggt catgggtctc taagtcccaa agagacttag caaagtccat cctgattggg gctccaggag ggccagcggg gtatctgcgg cgggccagtg tggcccaact gacccaggag ctgggcactg ccttcttcca gcagcagcag ctgccagctg ctatggcaga caccttcctg gaacacctct gcctactgga cattgactcc gagcccgtgg ctgctcgcag taccagcatc attgccacca tcgggccagc atctcgctcc gtggagcgcc tcaaggagat gatcaaggcc gggatgaaca ttgcgcgact caacttctcc cacggctccc acgagtacca tgctgagtcc atcgccaacg tccgggaggc ggtggagagc tttgcaggtt ccccactcag ctaccggccc gtggccatcg ccctggacac caagggaccg gagatccgca ctgggatcct gcaggggggt ccagagtcgg aagtggagct ggtgaagggc tcccaggtgc tggtgactgt ggaccccgcg ttccggacgc gggggaacgc gaacaccgtg tgggtggact accccaatat tgtccgggtc gtgccggtgg ggggccgcat ctacattgac gacgggctca tctccctagt ggtccagaaa atcggcccag agggactggt gacccaagtg gagaacggcg gcgtcctggg cagccggaag ggcgtgaact tgccaggggc ccaggtggac ttgcccgggc tgtccgagca ggacgtccga gacctgcgct tcggggtgga gcatggggtg gacatcgtct ttgcctcctt tgtgcggaaa gccagcgacg tggctgccgt cagggctgct ctgggtccgg aaggacacgg catcaagatc atcagcaaaa ttgagaacca cgaaggcgtg aagaggtttg atgaaatcct ggaggtgagc gacggcatca tggtggcacg gggggaccta ggcatcgaga tcccagcaga gaaggttttc ctggctcaga agatgatgat tgggcgctgc aacttggcgg gcaagcctgt tgtctgtgcc acacagatgc tggagagcat gattaccaag ccccggccaa cgagggcaga gacaagcgat gtcgccaatg ctgtgctgga tggggctgac tgcatcatgc tgtcagggga gactgccaag ggcaacttcc ctgtggaagc ggtgaagatg cagcatgcga ttgcccggga ggcagaggcc gcagtgtacc accggcagct gtttgaggag ctacgtcggg cagcgccact aagccgtgat cccactgagg tcaccgccat tggtgctgtg gaggctgcct tcaagtgctg tgctgctgcc atcattgtgc tgaccacaac tggccgctca gcccagcttc tgtctcggta ccgacctcgg gcagcagtca ttgctgtcac ccgctctgcc caggctgccc gccaggtcca cttatgccga ggagtcttcc ccttgcttta ccgtgaacct ccagaagcca tctgggcaga tgatgtagat cgccgggtgc aatttggcat tgaaagtgga aagctccgtg gcttcctccg tgttggagac ctggtgattg tggtgacagg ctggcgacct ggctccggct acaccaacat catgagggtg ctaagcatat cctga
Molecular Weight	58,494 Da
OMIM	102900
Vector	pENTR223.1 or pUC
Clone Sequence Report	Provided with product shipment
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for PKLR cdna clone	MBS1268308 is a cDNA clone targeting PKLR.
Other Notes	Small volumes of PKLR cdna clone vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PKLR. It may not necessarily be applicable to this product.

NCBI GI #	19343992
NCBI GeneID	5313
NCBI Accession #	BC025737
UniProt Secondary Accession #	O75758; P11973
UniProt Related Accession #	P30613
NCBI Official Full Name	Homo sapiens pyruvate kinase, liver and RBC, mRNA

NCBI Official Synonym Full Names	pyruvate kinase, liver and RBC
NCBI Official Symbol	PKLR
NCBI Official Synonym Symbols	PK1; PKL; PKR; RPK; PKRL
UniProt Protein Name	Pyruvate kinase PKLR
UniProt Synonym Protein Names	Pyruvate kinase 1; Pyruvate kinase isozymes L/R; R-type/L-type pyruvate kinase; Red cell/liver pyruvate kinase
Protein Family	Pyruvate kinase
UniProt Gene Name	PKLR
UniProt Synonym Gene Names	PK1; PKL
UniProt Entry Name	KPYR_HUMAN
NCBI Protein Information	pyruvate kinase PKLR
NCBI Summary for PKLR	The protein encoded by this gene is a pyruvate kinase that catalyzes the transphosphorylation of phohsphoenolpyruvate into pyruvate and ATP, which is the rate-limiting step of glycolysis. Defects in this enzyme, due to gene mutations or genetic variations, are the common cause of chronic hereditary nonspherocytic hemolytic anemia (CNSHA or HNSHA). Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]
UniProt Comments for PKLR	PKLR: one of three rate-limiting enzymes in glycolysis. It catalyzes the transfer of a phosphate group from phosphoenolpyruvate (PEP) to ADP, yielding one molecule ATP and a pyruvate molecule, which is a central metabolic intermediate that can be used as a building block or oxidized further. There are several mammalian isozymes of pyruvate kinase encoded by different genes. The L type predominates in liver, and the M type in muscle and brain. Two alternatively spliced human isoforms have been described: the R- and L-types. Protein type: Carbohydrate Metabolism - glycolysis and gluconeogenesis; EC 2.7.1.40; Nucleotide Metabolism - purine; Kinase, other; Carbohydrate Metabolism - pyruvate Chromosomal Location of Human Ortholog: 1q21 Cellular Component: cytosol Molecular Function: pyruvate kinase activity Disease: Adenosine Triphosphate, Elevated, Of Erythrocytes; Pyruvate Kinase Deficiency Of Red Cells
Research Articles on PKLR	**1.** Two Novel Missense Mutations and a 5bp Deletion in the Erythroid-Specific Promoter of the PKLR Gene in Two Unrelated Patients With Pyruvate Kinase Deficient Transfusion-Dependent Chronic Nonspherocytic Hemolytic Anemia.
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