

Recombinant human PKLR protein

Catalog Number: ATGP0714

PRODUCT INFORMATION

Expression system

E.coli

Domain

47-574aa

UniProt No.

P30613

NCBI Accession No.

NP_000289

Alternative Names

Pyruvate kinase isozymes R/L, PK1, PKL, PKR, PKRL, RPK

PRODUCT SPECIFICATION

Molecular Weight

59.2 kDa (549aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.2M NaCl, 1mM DTT, 10% glycerol

Purity

> 90% by SDS-PAGE

Biological Activity

Specific activity: > 80unit/mg. One unit will convert 1.0 umole of phospho(enol)pyruvate to pyruvate per minute at pH 7.5 at 37C.

Tag

His-Tag

Application

Enzyme Activity, SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

PKLR is a pyruvate kinase that catalyzes the transphosphorylation of phosphoenolpyruvate into pyruvate and ATP, which is the rate-limiting step of glycolysis. The PKLR gene encodes the L- and R-type isoenzymes through alternative splicing events under the control of different promoters. The L-type isoform also exists as a tetramer

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and is upregulated by glucose with implications in maturity-onset diabetes of the young. Recombinant human PKLR protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

MGSSHHHHHH SSGLVPRGSH MLTQELGTAF FQQQQLPAAM ADTFLEHLCL LDIDSEPVA RSTSIATIG PASRSVERLK
EMIKAGMNIA RLNFSGHSHE YHAESIANVR EAVESFAGSP LSYPVIAIAL DTKGPEIRTG ILQGGPESEV ELVKSQVLV
TVDPAFRTRG NANTVWVDYP NIVRVVPVGG RIYIDDGLIS LVVQKIGPEG LVTQVENGGV LGSRKGVNLP GAQVDLPGLS
EQDVRDLRFG VEHGVDIVFA SFVRKASDVA AVRAALGPEG HGIKIISKIE NHEGVKRFDE ILEVSDGIMV ARGDLGIEIP
AEKVFLAQKM MIGRCNLAGK PVVCATQMLE SMITKPRPTR AETSDVANAV LDGADCIMLS GETAKGNFPV EAVKMQHAIA
REAEAAVYHR QLFEELRRAA PLSRDPTEVT AIGAVEAAFK CCAAIIIVLT TTGRSAQLLS RYRPRAAVIA VTRSAQAARQ
VHLCRGVFPL LYREPPEAIW ADDVDRRVQF GIESGKLRGF LRVGDLVIVV TGWRPGSGYT NIMRVLSIS

General References

Meza NW., et al. (2009) Mol Ther. 17(12):2000-9.
Roy MF., et al. (2007) J Exp Med. 204(12):2949-61.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

15% SDS-PAGE (3ug)