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 phohsphoenolpyruvate 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

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

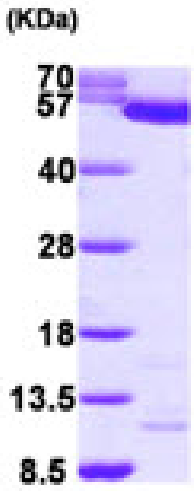
MGSSHHHHHH SSGLVPRGSH MLTQELGTAF FQQQQLPAAM ADTFLEHLCL LDIDSEPVAA RSTSIIATIG PASRSVERLK EMIKAGMNIA RLNFSHGSHE YHAESIANVR EAVESFAGSP LSYRPVAIAL DTKGPEIRTG ILQGGPESEV ELVKGSQVLV TVDPAFRTRG NANTVWVDYP NIVRVVPVGG RIYIDDGLIS LVVQKIGPEG LVTQVENGGV LGSRKGVNLP GAQVDLPGLS EQDVRDLRFG VEHGVDIVFA SFVRKASDVA AVRAALGPEG HGIKIISKIE NHEGVKRFDE ILEVSDGIMV ARGDLGIEIP AEKVFLAQKM MIGRCNLAGK PVVCATQMLE SMITKPRPTR AETSDVANAV LDGADCIMLS GETAKGNFPV EAVKMQHAIA REAEAAVYHR QLFEELRRAA PLSRDPTEVT AIGAVEAAFK CCAAAIIVLT 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



15% SDS-PAGE (3ug)

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