

Recombinant human RPIA protein

Catalog Number: ATGP1356

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-311aa

UniProt No.

P49247

NCBI Accession No.

NP_653164

Alternative Names

Ribose 5-phosphate isomerase, Phosphoriboisomerase, RPI

PRODUCT SPECIFICATION

Molecular Weight

35.4 kDa (331aa) confirmed by MALDI-TOF

Concentration

0.25mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 2mM DTT, 40% glycerol, 200mM NaCl, 2mM EDTA, 0,2mM PMSF

Purity

> 90% by SDS-PAGE

Tag

His-Tag

Application

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

RPIA (Ribose-5-phosphate isomerase) belongs to the ribose 5-phosphate isomerase family. RPIA is an enzyme that catalyzes the conversion between ribose-5-phosphate (R5P) and ribulose-5-phosphate (Ru5P). RPI exists as two distinct proteins forms, termed RPIA and RPIB. RPIA plays an essential role in the metabolism of plants and animals, as it is involved in the Calvin cycle which takes place in plants, and the pentose phosphate pathway which takes place in plants as well as animals. Recombinant human RPIA protein, fused to His-tag at N-terminus,

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was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

MGSSHHHHHH SSSLVPRGSH MQRPGPFSTL YGRVLAPLPG RAGGAASGGG GNSWDLPGSH VRLPGRAQSG
TRGGAGNTST SCGDSNSICP APSTMSKAE AKKLAGRAAV ENHVRNNQVL GIGSGSTIVH AVQRIAERVK QENLNLVCIP
TSFQARQLIL QYGLTSLDLD RHPEIDLAI GADEVADLN LIKGGGGCLT QEKIVAGYAS RFVIADFRK DSKNLGDQWH
KGIPIEVIPM AYVPVSRAVS QKFGGVVELR MAVNKAGPVV TDNGNFILDW KFDRVHKWSE VNTAIKMIPG VVDTGLFINM
AERVYFGMQD GSVNMREKPF C

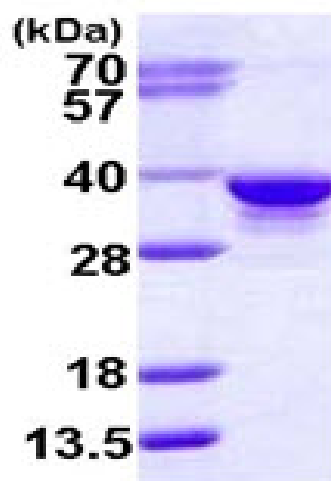
General References

Zhang, R., et al. (2003) Structure 11 (1): 31.

Huck J.H.J., et al. (2004) Am. J. Hum. Genet. 74:745-751

DATA

SDS-PAGE



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

15% SDS-PAGE (3ug)