

Recombinant Human Ribose 5-Phosphate Isomerase A, His-tagged

Cat. No. RPIA-1571H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human RPIA protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
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.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 2mM DTT, 40% glycerol, 200mM NaCl, 2mM EDTA, 0.2mM PMSF.
Molecular Weight	35.4kDa (331aa), confirmed by MALDI-TOF.
Purity	>90% by SDS-PAGE
Concentration	0.25 mg/ml (determined by Bradford assay)
Sequences of amino	MGSSHHHHHH SSGLVPRGSH MQRPGPFSTL YGRVLAPLPG RAGGAASGGG

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acids

GNSWDLPGSH VRLPGAQSG TRGGAGNTST SCGDSNSICP APSTMSKAE
 AKKLAGRAAV ENHVRNNQVL GIGSGSTIVH AVQRIAERVK QENLNLVCIP
 TSFQARQLIL QYGLTSLDLD RHPEIDLAI DGADEVDADLN LIKGGGGCLT
 QEKIVAGYAS RFIVIADFRK DSKNLGDQWH KGIPIEVIPM AYVPVSRVAVS
 QKFGGVVELR MAVNKAGPVV TDNGNFILDW KFDRVHKWSE VNTAIKMIPG
 VVDTGLFINM AERVYFGMQD GSVNMREKPF C

Storage

Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

Pathways

Metabolic pathways; Metabolism of carbohydrates; Pentose Phosphate Pathway

GENE INFORMATION
Gene Name

RPIA ribose 5-phosphate isomerase A [Homo sapiens]

Official Symbol

RPIA

Synonyms

RPIA; ribose 5-phosphate isomerase A; RPI; ribose-5-phosphate isomerase;
 OTTHUMP00000160851; phosphoriboisomerase; ribose 5-phosphate epimerase; EC
 5.3.1.6

Gene ID

22934

mRNA Refseq

NM_144563

Protein Refseq

NP_653164

MIM

180430

UniProt ID

P49247

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Chromosome Location	2p11.2
Function	isomerase activity; monosaccharide binding; ribose-5-phosphate isomerase activity
PDBrendering based on 1lkz.	

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