

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

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

## SPECIFICATION

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

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**acids**

GNSWDLPGSH VRLPGRAQSG TRGGAGNTST SCGDSNSICP APSTMSKAE  
 AKKLAGRAAV ENHVRNNQVL GIGSGSTIVH AVQRIAERVK QENLNLVCIP  
 TSFQARQLIL QYGLTSLDLD RHPEIDLAI DGADEV DADLN LIKGGGGCLT  
 QEKIVAGYAS RFIVIADFRK DSKNLGDQWH KGIPIEVIPM AYVPVSRASV  
 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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<b>Chromosome Location</b>	2p11.2
<b>Function</b>	isomerase activity; monosaccharide binding; ribose-5-phosphate isomerase activity

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