

Recombinant human RPE protein

Catalog Number: ATGP1439

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-228aa

UniProt No.

Q96AT9

NCBI Accession No.

NP_954699

Alternative Names

ribulose-5-phosphate-3-epimerase, RPE2-1

PRODUCT SPECIFICATION

Molecular Weight

27.5 kDa (252aa) confirmed by MALDI-TOF

Concentration

0.5mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 2mM DTT, 30% glycerol, 200mM NaCl

Purity

> 95% 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

RPE (ribulose-phosphate 3-epimerase) belongs to the ribulose-phosphate 3-epimerase family. In enzymology, a ribulose-phosphate 3-epimerase is the enzyme that converts D-ribulose 5-phosphate into D-xylulose 5-phosphate in Calvin's reductive pentose phosphate cycle. Hence, this enzyme has one substrate, D-ribulose 5-phosphate, and one product, D-xylulose 5-phosphate. This enzyme participates in 3 metabolic pathways: pentose phosphate pathway, pentose and glucuronate interconversions, and carbon fixation. Recombinant human RPE protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional

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chromatography techniques.

Amino acid Sequence

<MGSSHHHHHH SSGLVPRGSH MGSH>MASGCK IGPSILNSDL ANLGAECLRM LDSGADYLHL DVMDGHFVPN
ITFGHPVVES LRKQLGQDPF FDMHMMVSKP EQWVKPMAVA GANQYTFHLE ATENPGALIK DIRENGMKVG LAIKPGTSVE
YLAPWANQID MALVMTVEPG FGGQKFMEDM MPKVHWLRTQ FPSLDIEVDG GVGPDTVHKC AEAGANMIVS GSAIMRSEDP
RSVINLLRNV CSEAAQKRSL DR

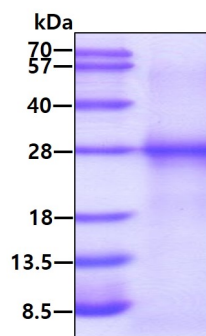
General References

Liang W., et al. (2011) FASEB J. 25:497-504

Akana, J., et al. (2006) Biochemistry 45: 2493-2503.

DATA

SDS-PAGE



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