Human RPE / RPE2-1 Protein (His Tag)

Catalog Number: **11970-H07H**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

RPE2-1; 2810429B02Rik; 5730518J08Rik

Protein Construction:

A DNA sequence encoding the human RPE isoform 1 (NP_954699.1) (Ala 2-Arg 228) was expressed, with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 94 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: His

Molecular Mass:

The recombinant human RPE consists of 246 amino acids and has a calculated molecular mass of 27 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhRPE is approximately 30 kDa.

Formulation:

Lyophilized from sterile 50mM Tris, 100mM NaCl, pH 8.0

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

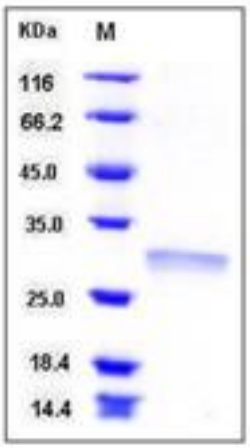
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

The "ribulose phosphate binding" superfamily defined by the Structural Classification of Proteins (SCOP) database is considered the result of divergent evolution from a common (beta/alpha)(8)-barrel ancestor. The superfamily includes d-ribulose 5-phosphate 3-epimerase (RPE), orotidine 5'-monophosphate decarboxylase (OMPDC), and 3-keto-l-gulonate 6-phosphate decarboxylase (KGPDC). Replication of the human genome requires the activation of thousands of replicons distributed along each one of the chromosomes. Each replicon contains an initiation, or origin, site, at which DNA synthesis begins. In enzymology, a L-ribulose-5-phosphate 3-epimerase is an enzyme that catalyzes the chemical reaction L-ribulose 5-phosphate to L-xylulose 5-phosphate. Hence, RPE has one substrate, L-ribulose 5-phosphate, and one product, L-xylulose 5-phosphate. RPE belongs to the family of isomerases, specifically those racemases and epimerases acting on carbohydrates and derivatives. The systematic name of this enzyme class is L-ribulose-5-phosphate 3-epimerase. Other names in common use include L-xylulose 5-phosphate 3-epimerase, UlaE, and SgaU.

References

1.Yew WS, et al., 2002, J. Bacteriol. 184 (1): 302-6.
2.Shimaoka, M. et al., 2005, Biosci Biotechnol Biochem 69 (7):1248-55.
3.Salinero,KK. et al., 2009, BMC Genomics 10 :351.