Recombinant Human RPE Protein (His Tag)

Catalog Number:PKSH030953

Note: Centrifuge before opening to ensure complete recovery of vial contents.

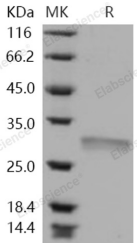
Description

Synonyms	Ribulose-Phosphate 3-Epimerase;Ribulose-5-Phosphate-3-Epimerase;RPE;HUSSY-17;RPE2-1
Species	Human
Expression Host	HEK293 Cells
Sequence	Ala 2-Arg 228
Accession	NP_954699.1
Calculated Molecular Weight	27.0 kDa
Observed molecular weight	30 kDa
Tag	N-His

Properties

Purity	> 94 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
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. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 94 % as determined by reducing SDS-PAGE.

Background

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.