



Recombinant Protein Technical Manual

Recombinant Human RPE Protein (His Tag)

RPES4436

Product Data:

Product SKU: RPES4436

Size: 20µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_954699.1

Protein Information:

Molecular Mass: 27 kDa

AP Molecular Mass: 30 kDa

Tag: N-His

Bio-activity:

Purity: > 94 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C 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

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Ribulose-Phosphate 3-Epimerase; Ribulose-5-Phosphate-3-Epimerase; RPE; HUSSY7;RPE2

Immunogen Information:

Sequence: Ala 2-Arg 228

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.