Recombinant Human Erythropoietin/EPO Protein

Catalog No.: RP01690

Sequence Information

Species
Human

Gene ID
2056

Swiss Prot
P01588

Tags
NO-tag

Synonyms
EP; DBAL; ECYT5; MVCD2; EPO; Erythropoietin

Product Information

Source
HEK293 cells

Purification
≥ 90 % as determined by SDS-PAGE.

Calculated MW
18.40 kDa

Observed MW
Approximately 35 kDa

Endotoxin
< 0.1 EU/μg of the protein by LAL method.

Formulation
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

Erythropoietin (EPO) is the major glycoprotein hormone regulator of mammalian erythropoiesis, and is produced by kidney and liver in an oxygen-dependent manner. The biological effects of EPO are mediated by the specific erythropoietin receptor (EPOR/EPO Receptor) on bone marrow erythroblasts, which transmits signals important for both proliferation and differentiation along the erythroid lineage. EPOR protein is a type a… single-transmembrane cytokine receptor, and belongs to the homodimerizing subclass which functions as ligand-induced or ligand-stabilized homodimers. EPOR signaling prevents neuronal death and ischemic injury. Recent studies have shown that EPO and EPOR protein may be involved in carcinogenesis, angiogenesis, and invasion.

Basic Information

Description
Recombinant Human Erythropoietin/EPO Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ala28-Arg193) of human Erythropoietin/EPO (Accession #NP_000790.2) fused with no additional amino acid.

Activity
Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED_{50} for this effect is 0.07-0.27 ng/mL, corresponding to a specific activity of 3.70×10^6~1.43×10^7 units/mg.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

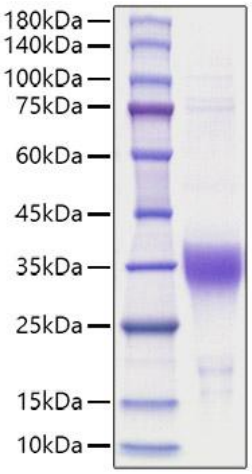
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

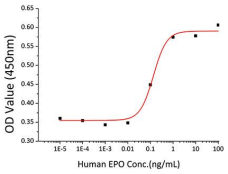
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Validation Data



Recombinant Human Erythropoietin/EPO Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Human EPO stimulates cell proliferation of the TF-1 human erythroleukemic cells. The ED_{50} for this effect is 0.07-0.27 ng/mL, corresponding to a specific activity of 3.70×10^6~1.43×10^7 units/mg.