

Recombinant Human Erythropoietin/EPO Protein

Catalog No.: RP01690 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	2056	P01588

Tags
NO-tag

Synonyms
EP; DBAL; ECVT5;
MVCD2□EPO□Erythropoietin

Product Information

Source	Purification
HEK293 cells	> 92% by SDS-PAGE.

Endotoxin
<0.1EU/μg

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 stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize freeze-thaw cycles.

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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.

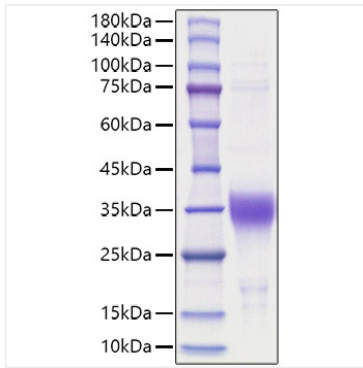
Bio-Activity

Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED₅₀ for this effect is 0.07-0.27 ng/mL, corresponding to a specific activity of 3.70 × 10⁶~1.43 × 10⁷ units/mg.

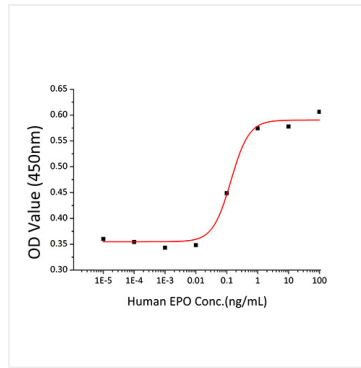
Storage

Store the lyophilized protein at -20°C to -80°C for 12 months. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human Erythropoietin/EPO Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 30-38 kDa.



Recombinant Human EPO stimulates cell proliferation of the TF-1 human erythroleukemic cells. The ED₅₀ 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.