RP01858

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Recombinant Rat Erythropoietin/EPO Protein

Catalog No.: RP01858 Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
Rat	24335	P29676

Tags
C-His

Synonyms
Erythropoietin□Epo

Product Information

Source **Purification**
HEK293 cells

Endotoxin
<0.1EU/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.

Contact

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Background

Erythropoietin (EPO), originally identified for its critical hormonal role in promoting erythrocyte survival and differentiation, is a member of the large and diverse cytokine superfamily. EPO and EPOR function as the primary mediators of a general protective response to tissue hypoxia, which acts to maintain adequate tissue oxygenation through adjustments of circulating red cell mass by using a hormonal feedback-control system involving the kidney and the bone marrow. EPO and EPORs are also expressed by other tissues and organs, including the brain and heart. EPO has also been shown to stimulate mitosis and signaling in astrocytes, endothelial cells, cardiomyoblasts, and cardiomyocytes maintained in vitro

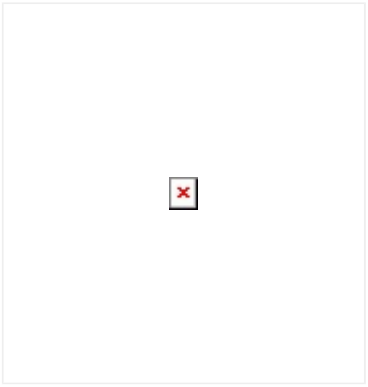
Basic Information

Description
Recombinant Rat Erythropoietin/EPO Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ala27-Arg192) of Rat Erythropoietin/EPO (Accession #NP_058697.1) fused with a His tag at the C-terminus.

Bio-Activity

Storage
Store the lyophilized protein at -20°C to -80°C for long term.
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 Rat Erythropoietin/EPO stimulates cell proliferation assay using TF-1 Human erythroleukemic cells. The ED_{50} for this effect is 0.7-2.8 ng/mL, corresponding to a specific activity of 3.57×10^{5}~1.43×10^{6} units/mg.