

Catalog No.: RP01858 **Recombinant**

Species	Gene ID	Swiss Prot
Rat	24335	P29676

C-His

Erythropoietin (Epo)

Source	Purification
HEK293 cells	≥ 90% as determined by SDS-PAGE.

Calculated MW	Observed MW
19.36 kDa	30-40 kDa

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

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

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 free-thaw cycles.

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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*.

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.

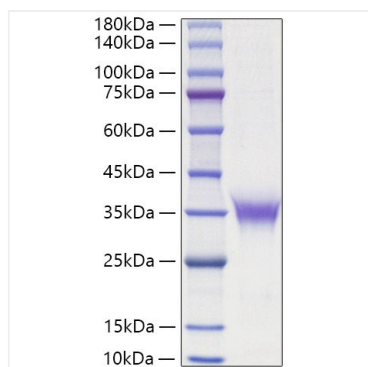
Measured in a cell proliferation assay using TF-1 Human erythroleukemic cells. The ED₅₀ for this effect is 0.7-2.8 ng/mL, corresponding to a specific activity of 3.57×10⁵~1.43×10⁶ units/mg.

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

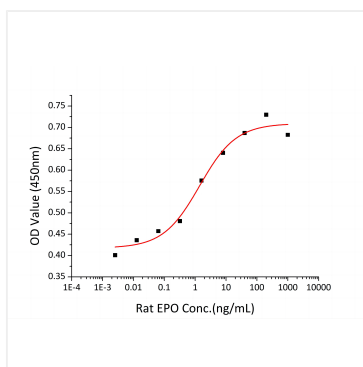
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.
Avoid repeated freeze/thaw cycles.

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

Validation Data



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



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 $3.57 \times 10^5 \sim 1.43 \times 10^6$ units/mg.