

RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Recombinant Human Erythropoietin-Alpha(EPO)

Catalog No. 228-10405

Source

Chinese Hamster Ovary Cells(CHO)

Synonyms

EPO-α, EPO-alpha, Epoetin, EP, MGC138142.

Introduction

This gene is a member of the EPO/TPO family and encodes a secreted, glycosylated cytokine composed of four alpha helical bundles. The protein is found in the plasma and regulates red cell production by promoting erythroid differentiation and initiating hemoglobin synthesis. This protein also has neuroprotective activity against a variety of potential brain injuries and antiapoptotic functions in several tissue types.

Description

Erythropoietin-alpha Human Recombinant is produced in Chinese hamster ovary (CHO) cells by recombinant DNA technology is a single, polypeptide chain containing 165 amino acids and having a predicted molecular mass of 21,000 Dalton and apparent glycosylated molecular mass of 30,400 Dalton. EPO-a is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

Each mg of lyophilized powder contains 5.8 mg sodium citrate, 5.8 mg sodium chloride and 0.06 mg citric acid.



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Solubility

It is recommended to reconstitute the lyophilized Epoetin -a in sterile $18M\Omega$ -cm H_2O not less than $100\mu g/ml$, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Erythropoietin-a although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution EPO-alpha should be stored at 4°C between 2-7 days and for future use below -18°C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). **Please prevent freeze-thaw cycles.**

Purity

Greater than 98.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

Biological Activity

The Specific Activity was measured by Normocyth-aemic mice and was found to be 120,000 IU/mg.