

RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Recombinant Human Erythropoietin-alpha Fc/Chimera

Catalog No.	Source
228-10406	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 Fc-Chimera Human Recombinant is produced in Chinese hamster ovary (CHO) cells by recombinant DNA technology is a dimeric, glycosilated, polypeptide chain consisting of two mature human EPO molecules linked to the Fc portion of human IgG1. The Fc component contains the CH2 domain, the CH3 domain and hinge region, but not the CH1 domain of IgG1. As a result of glycosylation, the recombinant protein migrates with an apparent molecular mass of 140 kDa in non-reducing SDS-PAGE.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

Each mg of lyophilized powder contains 1x PBS pH-7.4.

Purity

Greater than 98.0% as determined by(a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

Solubility

It is recommended to reconstitute the lyophilized Erythropoietin in sterile $18M\Omega$ -cm H2O not less than $100\mu g/ml$, which can then be further diluted to other aqueous solutions.



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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.

Biological Activity

The ED50 as determined by the dose-dependant stimulation of human megakaryoblastic leukemia cells is less than 2.0 ng/ml, corresponding to a Specific Activity of 5.0 x 105IU/mg.