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EPO a Human

Erythropoietin-Alpha Human Recombinant
GRF0045

Product Overview

Name	EPO a Human
Description	
Erythropoietin-Alpha Human Recombinant	
Accession (Primary)	P01588
Synonyms	
Erythropoietin-Alpha, EPO-a, EPO-alpha, 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.	
Source	
Chinese Hamster Ovary Cells(CHO).	
Physical Appearance	
Sterile Filtered White lyophilized (freeze-dried) powder.	
Formulation	
Each mg of lyophilized powder contains 0.59 mg sodium citrate, 0.58 mg sodium chloride and 0.006 mg citric acid.	
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.	
Amino acid sequence	
APPRLICDSR VLERYLLEAK EAENITTGCA EHCSLNENIT VPDTKVNFYA WKRMEVGQQA VEVWQGLALL SEAVLRGQAL LVNSSQPWEP LQLHVDKAVS GLRSLTTLLR ALGAQKEAIS PPDAASAAPL RTITADTFRK LFRVYSNFLR GKLKLYTGEA CRTGDR.	
Biological Activity	

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The Specific Activity was measured by Normocyth -aemic mice and was found to be 150,000 IU/mg.

Solubility

It is recommended to reconstitute the lyophilized EPO-alpha in sterile 18MΩ-cm H 2 O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

References

1. Title :Zinc Transporters ZnT1 (Slc30a1), Zip8 (Slc39a8), and Zip10 (Slc39a10) in Mouse Red Blood Cells Are Differentially Regulated during Erythroid Development and by Dietary Zinc Deficiency 1–3 Publication :Journal of Nutrition, doi:10.3945/jn.108.093575 Vol. 138, No. 11, 2076-2083, November 2008 © 2008 American Society for Nutrition J. Nutr. 138:2076-2083, November 2008 Link : EPO a prospec publication 2. Title :Systemically delivered Erythropoietin transiently enhances adult hippocampal neurogenesis. Publication :Article first published online: 7 MAY 2007 DOI:10.1111/j.1471-4159.2007.04684.x Journal of Neurochemistry Volume 102, Issue 6, pages 1953–1965, September 2007. Link : EPO a Human prospec publication 3. Title :ZINC TRANSPORTER EXPRESSION IN MATURE RED BLOOD CELLS AND DIFFERENTIATING ERYTHROID PROGENITOR CELLS. Publication :UNIVERSITY OF FLORIDA © 2007 Moon-Suhn Ryu Link : EPO a Protein prospec publication 4. Title :Cell Therapy with Human Renal Cell Cultures Containing Erythropoietin-Positive Cells Improves Chronic Kidney Injury. Publication :First Published Online May 3, 2012 doi: 10.5966/sctm.2011-0048 Stem Cells Trans Med May 2012 vol. 1 no. 5 373-383 Link : Erythropoietin-Alpha prospec publication

Precautions

EPO a Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P01588)