# EPO
# Recombinant Human Erythropoietin alpha, Lyophilized

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| **Catalog No.** | CRE134A | **Quantity:** | 500 U |
| | CRE134B | | 2000 U |
| | CRE134C | | 1.0 mg |

**Alternate Names:** EP, MVCD2, EPO

**Description:** Erythropoietin (EPO), a glycoprotein produced primarily by the kidney, is the principal factor that regulates erythropoiesis by stimulating the proliferation and differentiation of erythroid progenitor cells. The production of EPO by kidney cells is increased in response to hypoxia or anemia. Recombinant EPO has been approved for the treatment of anemia associated with chronic renal failure as well as for anemia of AZT treated AIDS patients.

The cDNAs for EPO have been cloned from human, murine, canine, etc. The mature proteins from the various species are highly conserved, exhibiting greater than 80% sequence identity at the amino acid level. Human EPO cDNA encodes a 193 amino acid residue precursor protein that is processed to yield a 165 amino acid residue mature protein. EPO contains one O-linked and three N-linked glycosylation sites. Glycosylation of EPO is required for EPO biological activities in vivo. EPO exhibits structural as well as amino sequence identity to the amino terminal 153 amino acid region of thrombopoietin.

**Concentration:** 0.608mg/ml

**Gene ID:** 2056

**Source:** CHO cells

**Molecular Weight:** Mature human EPO, containing 165 amino acid residues, has a predicted molecular mass of approximately 21 kDa. As a result of glycosylation, the recombinant protein migrates with at 36-40 kDa in SDS-PAGE.

**Formulation:** Lyophilized from a 0.2 μm sterile filtered solution of PBS, pH 7.4.

**Purity:** >98% by SDS-PAGE and HPLC analyses

**Endotoxin Level:** < 0.1 ng/μg of protein.

**Specific Activity:** Measured by normocythemic mice and was found to be $1.2 \times 10^5$ IU/mg.

**Amino Acid Sequence:** APPRLICDSR VLERYLLEAK EAENITTGCA EHCSLNENIT VPDTKVNFYA WKRMEVGQQA VEVWQGLALL SEAVLRGQAL LVNSSQPWEP LQLHVDKAVS GLRSLTTLLR ALGAQKEAIS PPDAASAAPL RTITADTFRK LFRVYSNFLR GKLKLYTGEA CRTGDR

**Reconstitution:** **Centrifuge vial prior to opening.** Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be divided into working aliquots and stored at -80°C. Further dilutions should be made in appropriate buffered solutions.

**Storage & Stability:** The lyophilized preparation is stable at 2-4°C, but should be kept desiccated at -20°C for long term storage. Upon reconstitution, the protein is stable for 1 week at 2-4°C. For maximal stability, divide the reconstituted product into working aliquots and store at -80° C. **Avoid repeated freeze-thaw cycles.**

**NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.**

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