Technical Data Sheet

Recombinant Human EPO-alpha (rHu EPO-α)

Human Erythropoietin

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.

Catalog Number:	RC213-15
Source:	*CHO*
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 an apparent molecular mass of 36-40 kDa in SDS-PAGE.
Quantity:	500U/2000U/1mg
Purity:	>98% by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The Specific Activity was measured by Normocyth-aemic mice and was found to be 1.2×10^5IU/mg.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	0.2μm filtered concentrated (1mg/ml) solution in PBS, pH 7.4.
AA Sequence:	APPRLICDSR VLERYLLEAK EAENITTGCA EHCSLNENIT VPDTKVNFYA WKRMEVGQQ A VEVWQGLALL SEAVLRGQAL LVNSSQPWEP LQLHVDKAVS GLRSLTTLLR ALGAQ KEAIS PPDAASAAPL RTITADTFRK LFRVYSNFLR GKLKLYTGEA CRTGDR
Endotoxin:	Less than 1EU/μg of rHuEPO-α as determined by LAL method.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. 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 apportioned into working aliquots and stored at ≤-20°C. Further dilutions should be made in appropriate buffered solutions.
Storage:	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable

	for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.
Usage:	This material is offered by Bio Basic Inc. for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.