

Active Recombinant Human EPO alpha Protein (165 aa)

Cat. No. EPO-124E Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human EPO alpha Protein without tag was expressed in CHO.
Species	Human
Source	CHO
ProteinLength	165
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.
Form	Sterile Filtered White lyophilized (freeze-dried) powder.
Bio-activity	Fully biologically active when compared to standard. The Specific Activity was

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

	measured by Normocyth-aemic mice and was found to be 1.2×10^5 IU/mg.
Molecular Mass	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.
AA Sequence	APPRLICDSRVLERYLLEAKEAENITTGCAEHCSLNENITVPDTKVNIFYAWKRMEVG QQAVEVWQGLALLSEAVLRGQALLVNSSQPWEPLQLHVDKAVSGLRSLTLLRALG AQKEAISPPDAASAAPLRITADTFRKLFRVYSNFLRGKCLKLYTGEACRTGDR
Endotoxin	Less than 1 EU/mg of rHuEPO- α as determined by LAL method.
Purity	>98% by SDS-PAGE and HPLC analyses.
Storage	This lyophilized preparation is stable at 2-8 centigrade, but should be kept at -20 centigrade for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 centigrade. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 to -70 centigrade. Avoid repeated freeze/thaw cycles.
Storage Buffer	0.2mm filtered concentrated solution in PBS, pH 7.4.
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 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name EPO erythropoietin [Homo sapiens]

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Official Symbol	EPO
Synonyms	EPO; erythropoietin; EP; epoetin; MVCD2; MGC138142;
Gene ID	2056
mRNA Refseq	NM_000799
Protein Refseq	NP_000790
MIM	133170
UniProt ID	P01588

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA