Active Recombinant Human EPO Protein, His-tagged

Cat. No. EPO-363H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human EPO, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.
Species	Human
Source	Insect Cells
Description	EPO, also known as erythropoietin, is a glycoprotein hormone in the type I cytokine family and is related to thrombopoietin. Its three N-glycosylation sites, four alpha helices, and N- to C-terminal disulfide bond are conserved across species. It is primarily produced in the kidney by a population of fibroblast-like cortical interstitial cells adjacent to the proximal tubules. This protein can be found in the plasma and regulates red cell production by promoting erythroid differentiation and initiating hemoglobin synthesis. It also has neuroprotective activity against a variety of potential brain injuries and anti-apoptotic functions in several tissue types.
Form	Liquid. In Phosphate Buffered Saline (pH 7.4) containing 10% glycerol.
Bio-activity	Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED50 for this effect is equal or less than 0.5 ng/ml.
Molecular Mass	19.5kDa (174aa)28-40KDa (SDS-PAGE under reducing conditions.)
AA Sequence	APPRLICDSR VLERYLLEAK EAENITTGCA EHCSLNENIT VPDTKVNFYA WKRMEVGQQA VEVWQGLALL SEAVLRGQAL LVNSSQPWEPLQLHVDKAVS

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	GLRSLTTLLR ALRAQKEAIS PPDAASAAPL RTITADTFRK LFRVYSNFLR GKLKLYTGEA CRTGDRLEHH HHHH
Endotoxin	< 1.0 EU per 1 microgram of protein (determined by LAL method)
Purity	>95% by SDS - PAGE
Storage	Can be stored at +4 centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.
Concentration	0.5mg/ml (determined by Absorbance at 280nm)

GENE INFORMATION

Gene Name	EPO erythropoietin [Homo sapiens]
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

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Chromosome Location	7q21
Pathway	Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; EPO Receptor Signaling, organism-specific biosystem; EPO signaling pathway, organism-specific biosystem; HIF-1-alpha transcription factor network, organism-specific biosystem; HIF-2-alpha transcription factor network, organism-specific biosystem; Hematopoietic cell lineage, organism-specific biosystem;
Function	erythropoietin receptor binding; eukaryotic cell surface binding; hormone activity; protein binding; protein kinase activator activity;

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