

Active Recombinant Human Erythropoietin

Cat. No. EPO-269H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human EPO (P01588, 1 aa-193 aa) full-length recombinant protein expressed in Escherichia coli.
Species	Human
Source	Human
ProteinLength	1-193 a.a.
Description	Erythropoietin, or its alternatives erythropoetin or erithropoyetin or EPO, is a glycoprotein hormone that controls erythropoiesis, or red blood cell production. It is a cytokine for erythrocyte (red blood cell) precursors in the bone marrow. Also called hematopoietin or hemopoietin, it is produced by the peritubular capillary endothelial cells in the kidney and liver, it is the hormone that regulates red blood cell production. It also has other known biological functions. For example, erythropoietin plays an important role in the brain's response to neuronal injury. EPO is also involved in the wound healing process. When exogenous EPO is used as a performance-enhancing drug, it is classified as an erythropoiesis-stimulating agent (ESA). Exogenous EPO can often be detected in blood, due to slight difference from the endogenous protein, for example in features of posttranslational modification.
Sequence	MGVHECPAWL WLLLSLLSLP LGLPVLGAPP RLICDSRVLE RYLLEAKEAE NITTGCAEHC SLNENITVPD TKVNFYAWKR MEVGQQAVEV WQGLALLSEA VLRGQALLVN SSQPWEPLQL HVDKAVSGLR SLTTLLRALG AQKEAISPPD

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AASAPLRTI TADTFRKLFR VYSNFLRGKL KLYTGEACRT GDR	
Theoretical MW (kDa)	20
Form	Lyophilized
Preparation Method	Escherichia coli expression system
Purification	Ion exchange column and HPLC reverse phase column.
Purity	> 98% by SDS-PAGE and HPLC
Endotoxin Level	< 0.1 ng/ug (1 EU/ug)
Activity	Activity was determined by the dose-dependent proliferation assay using a factor-dependent human erythroleukemic cell line TF-1 and was found to be 3.8×10^5 IU/mg.
Application	SDS-PAGE
Storage Buffer	Lyophilized from PBS, pH 7.
Storage	Store at -20°C on dry atmosphere for 2 years. After reconstitution with deionized water, store at 4°C for 1 month or store at -20°C for 6 months. Aliquot to avoid repeated freezing and thawing.
Unitprot ID	P01588

GENE INFORMATION

Gene Name	EPO erythropoietin [Homo sapiens]
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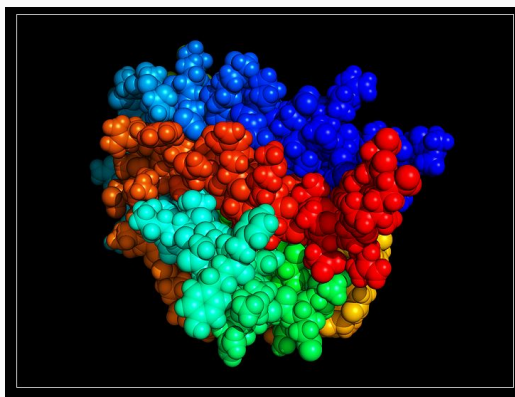
Official Symbol	EPO
Synonyms	EP; MGC138142; Epoetin; Erythropoietin Precursor; EPO; erythropoietin; OTTHUMP00000201234; MVCD2
Gene ID	2056
mRNA Refseq	NM_000799
Protein Refseq	NP_000790
MIM	133170
Chromosome Location	7q22
Pathway	Cytokine-cytokine receptor interaction; Hematopoietic cell lineage; Jak-STAT signaling pathway; Paxillin-independent events mediated by a4b1 and a4b7; Signaling events mediated by Stem cell factor receptor (c-Kit); HIF-2-alpha transcription factor network; HIF-1-alpha transcription factor network; EPO Receptor Signaling; EPO signaling pathway
Function	erythropoietin receptor binding IEA ;hormone activity IEA ;protein binding; eukaryotic cell surface binding; protein kinase activator activity

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Available structures



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