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Datasheet for ABIN7535783 EPO Protein (His tag)

Overview

Quantity:	100 µg
Target:	EPO
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This EPO protein is labelled with His tag.

Product Details

Purpose:	Active Recombinant Human Erythropoietin/EPO Protein
Sequence:	APPRLICDSR VLERYLLEAK EAENITTGCA EHCSLNENIT VPDTKVNIFYA WKRMEVGQQA VEVWQGLALL SEAVLRGQAL LVNSSQPWEP LQLHVDKAVS GLRSLTLLR ALGAQKEAIS PPDAASAAPL RTITADTFRK LFRVYSNFLR GKLKLYTGEA CRTGDR
Specificity:	Ala28-Arg193
Purity:	> 95 % by SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	<0.1EU/µg
Biological Activity Comment:	1. Measured by its binding ability in a functional ELISA. Immobilized Human EPO Protein at 5µg/mL (100 µL/well) can bind EPOR with a linear range of 0.12-23.83 ng/mL. 2. Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED ₅₀ for this effect is 0.03-0.12 ng/mL.

Target Details

Target:	EPO
Alternative Name:	Erythropoietin/EPO (EPO Products)
Target Type:	Hormone
Background:	<p>Description: Erythropoietin is a member of the EPO / TPO family. It is a secreted, glycosylated cytokine composed of four alpha helical bundles. Erythropoietin 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 antiapoptotic functions in several tissue types. Erythropoietin is the principal hormone involved in the regulation of erythrocyte differentiation and the maintenance of a physiological level of circulating erythrocyte mass. It is produced by kidney or liver of adult mammals and by liver of fetal or neonatal mammals. Genetic variation in erythropoietin is associated with susceptibility to microvascular complications of diabetes type 2. These are pathological conditions that develop in numerous tissues and organs as a consequence of diabetes mellitus. They include diabetic retinopathy, diabetic nephropathy leading to end-stage renal disease, and diabetic neuropathy. Diabetic retinopathy remains the major cause of new-onset blindness among diabetic adults. It is characterized by vascular permeability and increased tissue ischemia and angiogenesis. It has a longer circulating half-life in vivo. Erythropoietin is being much misused as a performance-enhancing drug in endurance athletes.</p> <p>Name: EPO,EP,MVCD2</p>
Gene ID:	2056
UniProt:	P01588
Pathways:	JAK-STAT Signaling , Hormone Activity , Negative Regulation of intrinsic apoptotic Signaling , Negative Regulation of Transporter Activity

Application Details

Restrictions: For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1 % BSA, 5 % HSA, 10 % FBS or 5 %

Handling

Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Buffer: Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Storage: -20 °C, -80 °C

Storage Comment: Store the lyophilized protein at -20°C to -80°C for 12 months. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.