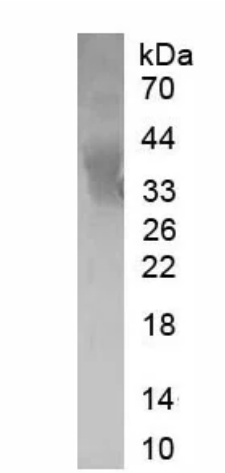
Active Erythropoietin (EPO)

Catalog#:PHH12025

概述（Summary）

别称（Alternative Names）	EP; Epoetin; Erythropoetin; Hematopoietin; Hemopoietin
纯度（Purity）	Greater than 95% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Ala28-Arg193】
Accession #	P01588
表达宿主（Host）	293F
种属（Species）	Homo sapiens (Human)
预测分子量（Predicted MW）	20.0 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Hormone involved in the regulation of erythrocyte proliferation and differentiation and the maintenance of a physiological level of circulating erythrocyte mass. Binds to EPOR leading to EPOR dimerization and JAK2 activation thereby activating specific downstream effectors, including STAT1 and STAT3.

电泳图（SDS-PAGE image）



Greater than 95% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

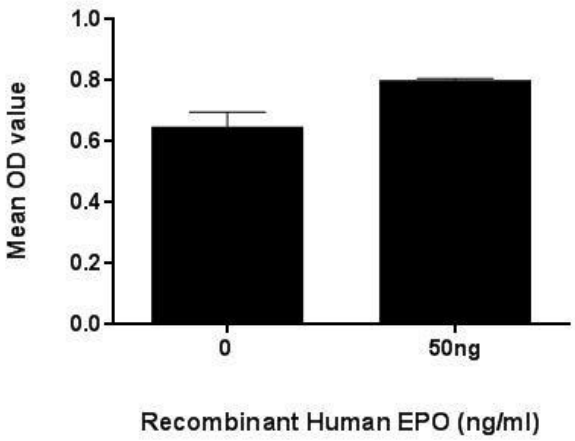
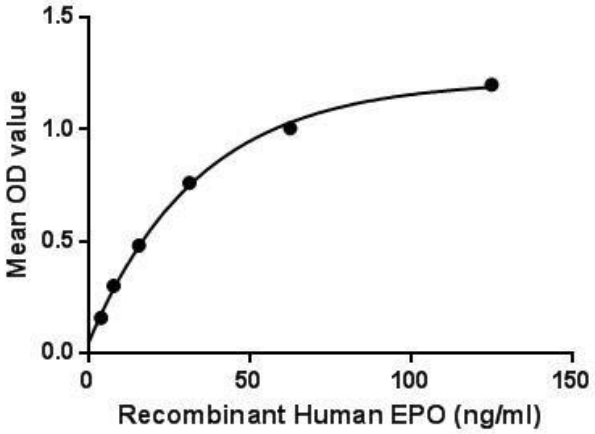


Figure. The binding activity of EPO with EPOR. Erythropoietin (EPO), also known as hematopoietin or hemopoietin, is a glycoprotein cytokine secreted by the kidney in response to cellular hypoxia. Erythropoietin is an essential hormone for red blood cell production. Its primary effect on red blood cell progenitors and precursors (which are found in the bone marrow in humans) by promoting their survival through protecting these cells from apoptosis, or cell death. EPO is the primary erythropoietic factor that cooperates with various other growth factors involved in the development of erythroid lineage from multipotent progenitors. Besides, Erythropoietin Receptor (EPOR) has been identified as an interactor of EPO, thus a binding ELISA assay was conducted to detect the interaction of recombinant human EPO and recombinant human EPOR. Briefly, EPO were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to EPOR-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-EPO pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of EPO and EPOR was shown in Figure 1, and this effect was in a dose dependent manner. Figure. Cell proliferation of TF-1 cells after stimulated with EPO.
To test the effect of EPO on cell proliferation, TF-1 cells were seeded into triplicate wells of 96-well plates at a density of 5,000 cells/well with 1% serum standard 1640 including various concentrations of recombinant human EPO. After incubated for 72h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10μL of CCK-8 solution was added to each well of the plate, then the absorbance at 450nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37℃. Proliferation of TF-1 cells after incubation with EPO for 72h observed by inverted microscope was

shown in Figure 1. Cell viability was assessed by CCK-8 (Cell Counting Kit-8) assay after incubation with recombinant EPO for 72h. The result was shown in Figure 2. It was obvious that EPO significantly increased cell viability of TF-1 cells.
(A) TF-1 cells cultured in 1640, stimulated with 50ng/mL EPO for 72h;
(B) Unstimulated TF-1 cells cultured in1640 for 72h. Figure. Cell proliferation of TF-1 cells after stimulated with EPO.



注意事项（Note）

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