

Recombinant Human EPO protein, N-His Tag

Product Information

Cat IMP-3445

Official Symbol EPO

Product Overview Recombinant Human EPO protein(P01588)(Ala28~Arg193), fused with N-

terminal His Tag, was expressed in E. coli.

Expression System E. coli

Species Human

Tag N-His Tag

Form PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and

Proclin300.

Molecular Mass 22/24kDa

Protein length Val30~Met212

Purity > 95%

Storage Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot

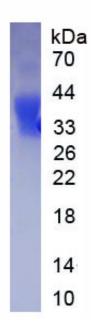
and store at -80°C for 12 months.

Reconstitution It is recommended that sterile water be added to the vial to prepare a stock

solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover

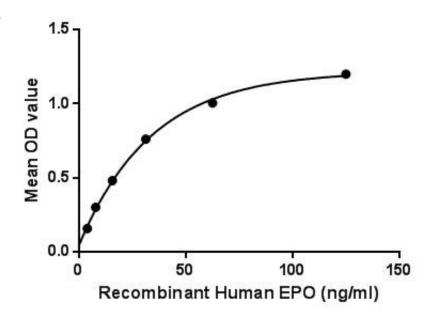
the entire contents.

SDS-PAGE





Bioactivity-ELISA



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°C. 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°C. 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.

Bioactivity-ELISA 2





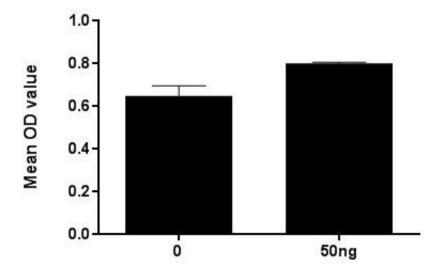


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To test the effect of EPO on cell proliferation, TF-1 cells were seeded into triplicate wells of 96-well plates at a density of 5,000 cells/well with 1% serum standard 1640 including various concentrations of recombinant human EPO. After incubated 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°C. 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 in 1640 for 72h.

Bioactivity-ELISA 3





Recombinant Human EPO (ng/ml)