APA028Hu01 10μg
Active Erythropoietin (EPO)
Organism Species: *Homo sapiens* (Human)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Ala28~Arg193
Tags: Two N-terminal Tags, His-tag and GST-tag
Purity: >90%
Endotoxin Level: <1.0EU per 1mL (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 5% Trehalose.
Original Concentration: 150μg/mL
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 7.0
Predicted Molecular Mass: 48.4kDa
Accurate Molecular Mass: 48kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in ddH_2O to a concentration ≤0.1 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.
Store at 2-8°C for one month.
Aliquot and store at -80°C for 12 months.

Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37ºC for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

APP RLICDSRVLE RYLLEAKEAE
NITTGCAEHC SLNENITVPD TKVNFYAWKR MEVGQQAVEV WQGLALLSEA
VLRGQALLVN SSQPWEPLQL HVDKAVSGLR SLTTLLRALG AQKEAISPPD
AASAAPLRTI TADTFRKLFR VYSNFLRGKL KLYTGEACRT GDR

[ACTIVITY]

Erythropoietin (EPO), also known as hematopoietin or hemopoietin, is a glycoprotein cytokine secreted by the kidney in response to cellular hypoxia; it stimulates red blood cell production (erythropoiesis) in the bone marrow. Erythropoietin is an essential hormone for red blood cell production. EPO can cooperate with various other growth factors involved in the development of erythroid lineage from multipotent progenitors. 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 B

Figure 1. Cell proliferation of TF-1 cells after stimulated with EPO.

(A) TF-1 cells cultured in 1640, stimulated with 5ng/mL EPO for 72h;

(B) Unstimulated TF-1 cells cultured in1640 for 72h.

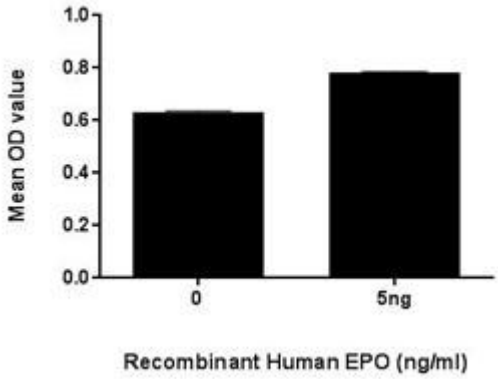

Figure 2. Cell proliferation of TF-1 cells after stimulated with EPO.

[IDENTIFICATION]

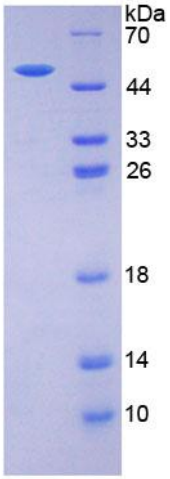

Figure 3. SDS-PAGE

Sample: Active recombinant EPO, Human

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.