APA028Mu61 100μg
Active Erythropoietin (EPO)
Organism Species: *Mus musculus (Mouse)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Eukaryotic expression.
Host: CHO
Residues: Ala27~Arg192
Tags: N-terminal His-tag
Purity: >95%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 5% Trehalose .
Original Concentration: 200μg/mL
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 7.9
Predicted Molecular Mass: 20.2kDa
Accurate Molecular Mass: 37kDa as determined by SDS-PAGE reducing conditions.
Phenomenon explanation:
The possible reasons that the actual band size differs from the predicted are as follows:

1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

[USAGE]

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 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 37°C 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]

APPRLICDSRVLERYILEAKEAENVTMGCAEGPRLSENITVPDTKVNFYAWKRMEVEEQAIEVW
QGLSLLSEAILQAQALLANSSQPPETLQLHIDKAISGLRSLTSLLRVLGAQKELMSPPDTTPPAPLR
TLTVDTFCKLFRVYANFLRGKLKLYTGEVCRRGDR

[ACTIVITY]

Erythropoietin (EPO) is a growth factor produced in the kidneys that stimulates the production of red blood cells. It works by promoting the division and differentiation of committed erythroid progenitors in the bone marrow. EPO additionally plays a tissue protective role in ischemia by blocking apoptosis and inducing angiogenesis. 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 20,000 cells/well with 10% serum standard 1640 which contains various concentration of recombinant mouse EPO. After incubated for 72h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 μl of CCK-8 solution was added to each well of the plate, then the absorbance at 450 nm was measured using a microplate reader after incubating the plate for 4 hours at 37 ℃.Cell viability was assessed by CCK-8 assay after incubation with

recombinant mouse EPO for 48h. The result was shown in Figure 1. It was obvious that EPO significantly increased cell viability of TF-1 cells. The ED50 is 1.084 μg/ml.

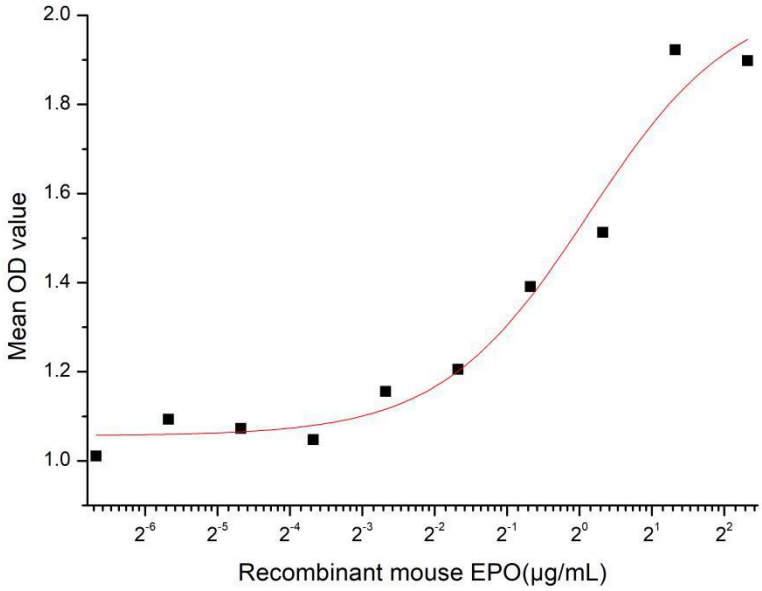


Figure 1. Cell proliferation of TF-1 cells after stimulated with recombinant mouse EPO.

[IDENTIFICATION]

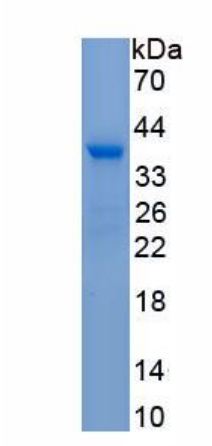


Figure 2. SDS-PAGE

Sample: Active recombinant EPO, Mouse

[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.