APC918Ra61 100μg
Active Fibroblast Growth Factor 21 (FGF21)
Organism Species: *Rattus norvegicus (Rat)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Eukaryotic expression.
Host: 293F cell
Residues: Gly25~Ser208
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.
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 4.5
Predicted Molecular Mass: 21.7kDa
Accurate Molecular Mass: 24kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 10mM PBS (pH7.6) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.
Store at 2-8ºC for one month.
Aliquot and store at -80ºC 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]

GVCEAYPISDSSPLLQFGGQVRQRYLYTDDDQDTEAHLEIREDGTVVGTAHRSPESLLELKALKPGVIQILGVKASRFLCQQPDGTLY
GSPHFDPEACSFRELLLKDGYNVYQSEAHGLPLRLPQKDSQDPATRGPVRFLPMPGLPHEPQEQPGVLPPEPPDVGSSDPLSMVEPLQ
GRSPSYAS

[ACTIVITY]

Fibroblast growth factor 21 (FGF21) is a protein that in mammals is encoded by the FGF21 gene. The protein encoded by this gene is a member of the fibroblast growth factor (FGF) family which possess broad mitogenic and cell survival activities, and are involved in a variety of biological processes including embryonic development, cell growth, morphogenesis, tissue repair, tumor growth and invasion. A proliferation assay was conducted to detect the bioactivity of recombinant rat FGF21 using Balb/c 3T3 cells. Briefly, 3T3 cells were seeded into triplicate wells of 96-well plates at a density of 4,000 cells/well and allowed to attach overnight, then the medium was replaced with various concentrations of FGF21 diluted with serum-free standard DMEM. After incubated for 48h, 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 1-4 hours at 37°C. Proliferation of Balb/c 3T3 cells after incubation with FGF21 for 48h observed by inverted microscope was shown in Figure1. Cell viability was assessed by CCK-8(Cell Counting Kit-8) assay after incubation with recombinant FGF21 for 48h. The result was shown in Figure2. It was obvious that FGF21 significantly increased cell viability of 3T3 cells. The ED50 of recombinant rat FGF21 is 0.23 ng/ml.

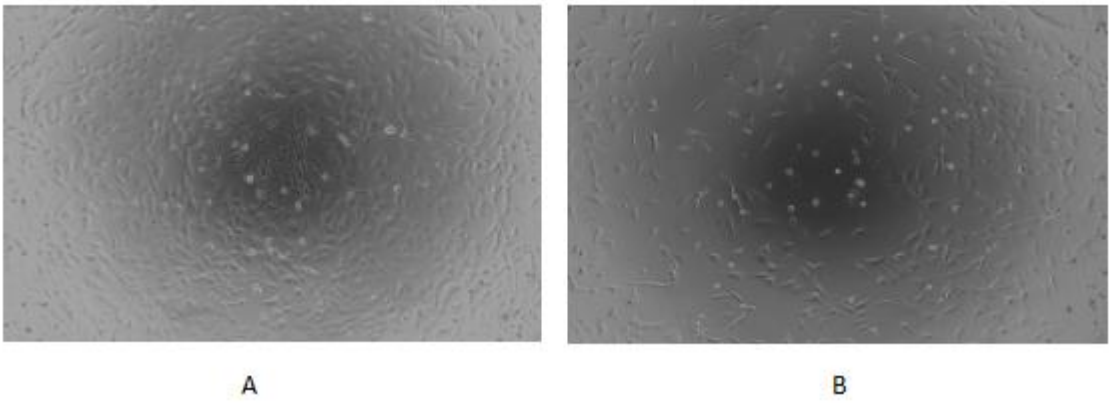

Figure 1. Cell proliferation of 3T3 cells after stimulated with FGF21.

(A)3T3 cells cultured in DMEM, stimulated with 1ug/ml FGF21 for 48h;

(B) Unstimulated 3T3 cells cultured in DMEM for 48h.

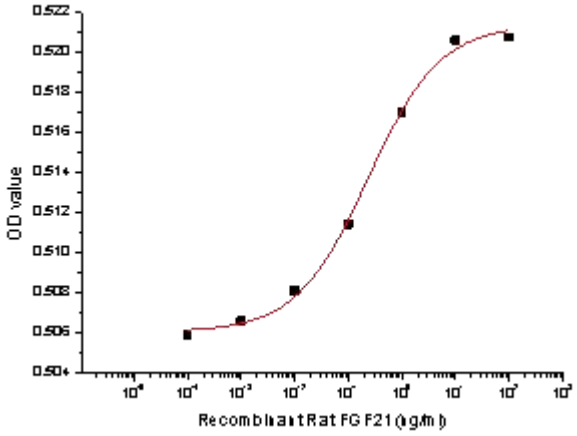

Figure 2. The dose-effect curve of FGF21 on Balb/c 3T3 cells.

[IDENTIFICATION]

Figure 3. SDS-PAGE

Sample: Active recombinant FGF21, Rat

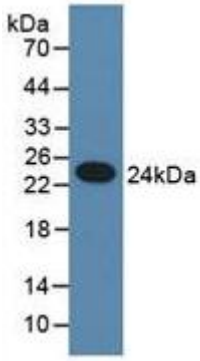

Figure 4. Western Blot

Sample: Recombinant FGF21, Rat;

Antibody: Rabbit Anti-Rat FGF21 Ab (PAC918Ra06)

[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.