

APC910Hu01 2mg
Active Fibroblast Growth Factor 17 (FGF17)
Organism Species: *Homo sapiens (Human)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: Thr23~Gly199

Tags: N-terminal His-tag

Purity: >95%

Endotoxin Level: <1.0EU per 1µg (determined by the LAL method).

Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 5% Trehalose.

Original Concentration: 550µg/mL

Applications: Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 10.7

Predicted Molecular Mass: 24.2kDa

Accurate Molecular Mass: 33&28&24kDa 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]

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TQGENHPSPNFNQYVRDQGAMTDQLSRRQIREYQLYSRTSGKHVQVTGRRIS  
ATAEDGNKFAKLIVETDTFGSRVRIKGAESEKYICMNKRGKLGKPSGKSKDCV  
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GQLPFPNHAEKQKQFEFVG
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[ACTIVITY]

Fibroblast growth factor 17(FGF17) is a member of the fibroblast growth factor family. FGF family members 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 human FGF17 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 FGF17 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 μ l 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 FGF17 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 FGF17 for 48h. The result was shown in Figure2. It was obvious that FGF17 significantly increased cell viability of 3T3 cells. The ED50 of recombinant human FGF17 is 335ng/ml.

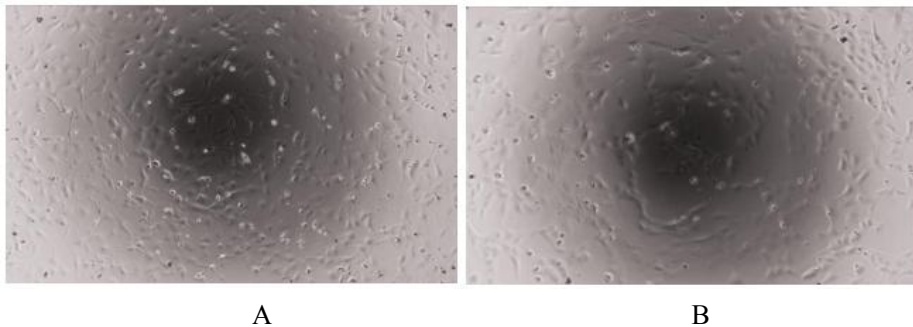


Figure 1. Cell proliferation of Balb/c 3T3 cells after stimulated with FGF17.

(A)3T3 cells cultured in DMEM, stimulated with 1000 ng/ml FGF17 for 48h;

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

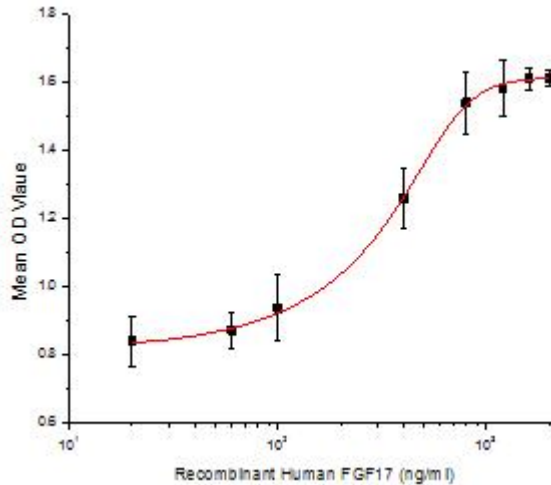


Figure 2. The dose-effect curve of FGF17 on Balb/c 3T3 cells.

[IDENTIFICATION]

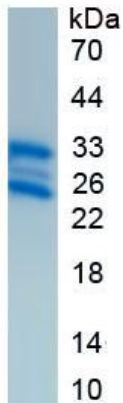


Figure 3. SDS-PAGE

Sample: Active recombinant FGF17, 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.