

APC915Ra01 100µg
Active Fibroblast Growth Factor 13 (FGF13)
Organism Species: Rattus norvegicus (Rat)
Instruction manual

FOR IN VITRO USE AND RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: Met1~Thr192

Tags: N-terminal His-tag

Purity: >98%

Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 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: 9.2

Predicted Molecular Mass: 22.9kDa

Accurate Molecular Mass: 24kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) 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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MALLRKSYSE PQLKGIVTKL YSRQGYHLQL QADGTIDGTK DEDSTYTLFN  
LIPVGLRVVA IQGVQTKLYL AMNSEGYLYT SEHFTPECKF KESVFENYYV  
TYSSMIYRQQ QSGRGWYLGL NKEGEIMKGN HVKKNKPAAH FLPKPLKVM  
YKEPSLHDLT EFSRSGSGTP TKSRSVSGVL NGGKSMSHNE ST
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[ACTIVITY]

FGF13 (Fibroblast growth factor 13) is a member of the fibroblast growth factor (FGF) 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 rat FGF13 using 3T3 cells. Briefly, 3T3 cells were seeded into triplicate wells of 96-well plates at a density of 2,000 cells/well and allowed to attach overnight, then the medium was replaced with serum-free standard DMEM prior to the addition of various concentrations of FGF13. 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 450nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37°C. Proliferation of 3T3 cells after incubation with FGF13 for 48h 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 FGF13 for 48h. The result was shown in Figure 2. It was obvious that FGF13 significantly increased cell viability of 3T3 cells.



A B
Figure 1. Cell proliferation of 3T3 cells after stimulated with FGF13.

(A) 3T3 cells cultured in DMEM, stimulated with 100ng/mL FGF13 for 48h;
(B) Unstimulated 3T3 cells cultured in DMEM for 48h.

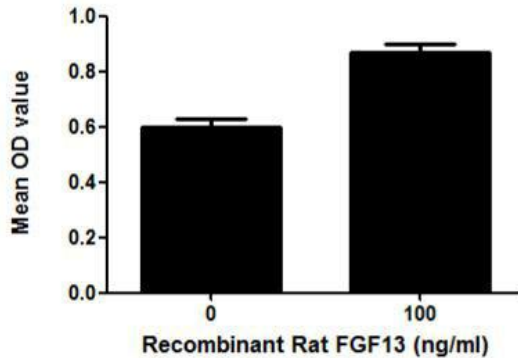


Figure 2. Cell proliferation of 3T3 cells after stimulated with FGF13.

[IDENTIFICATION]

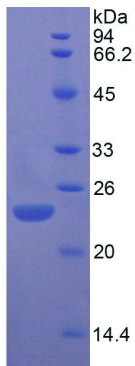


Figure 3. SDS-PAGE

Sample: Active recombinant FGF13, Rat

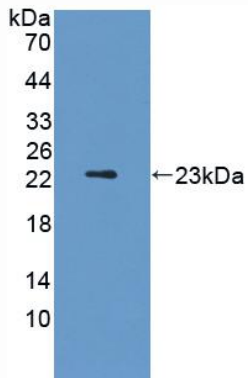


Figure 4. Western Blot

Sample: Recombinant FGF13, Rat;

Antibody: Rabbit Anti-Rat FGF13 Ab (PAC915Ra01)