

APC907Hu01 50µg
Active Fibroblast Growth Factor 18 (FGF18)
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: Glu28~Ala207

Tags: N-terminal His-tag

Purity: >90%

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

Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.01% skl 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: 10.7

Predicted Molecular Mass: 24.7kDa

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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                EEN VDFRIHVENQ TRARDDVSRK
QLRLYQLYSR TSGKHIQVLG RRISARGEDG DKYAQLLVET DTFGSQVRIK
GKETEFYLCM NRKGLKLVGKP DGTSKECVFI EKVLENNYTA LMSAKYSGWY
VGFTKKGRPR KGPKTRENQQ DVHFMKRYPK GQPELQKPFK YTTVTKRSRR
IRPTHPA
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[ACTIVITY]

Fibroblast Growth Factor-18 (FGF18) is a trophic factor for mature chondrocytes and their progenitors. It has been reported to have significant anabolic effects on cartilage. FGF18 plays a central role in skeletal growth and development. Besides, Fibroblast Growth Factor Receptor 3 (FGFR3) has been identified as an interactor of FGF18, thus a binding ELISA assay was conducted to detect the interaction of recombinant human FGF18 and recombinant human FGFR3. Briefly, FGF18 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100µl were then transferred to FGFR3-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-FGF18 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50µl stop solution to the wells and read at 450nm immediately. The binding activity of FGF18 and FGFR3 was shown in Figure 1, and this effect was in a dose dependent manner.

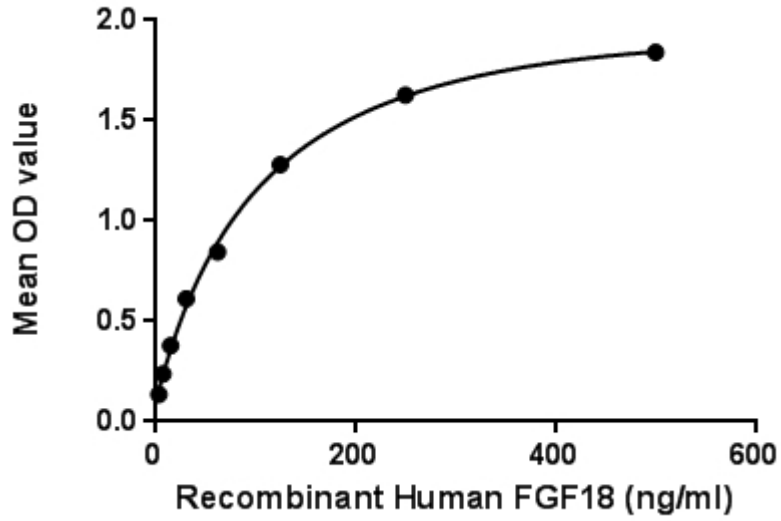


Figure 1. The binding activity of FGF18 with FGFR3

[IDENTIFICATION]

ATGCTTGTGAGCGGAGCTGGAAATTGGATCCGGAGCCATTTCCTGTCCAGCCATGCTAAGCCATATGGCTCCCGGGCCAGCCAGCCGCTGCTGTGATGATGATGATGCTGCTGCCATGGTATATCTCCTCTTAAAGTTAAACAAATTATTTCTAGAGGGGAATTGTTATCCGCTCAATTCCTC

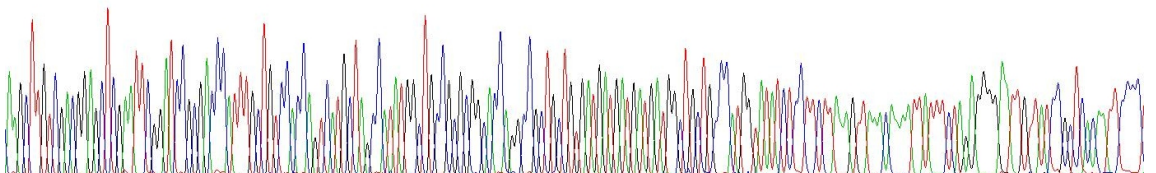


Figure 2. Gene Sequencing (extract)

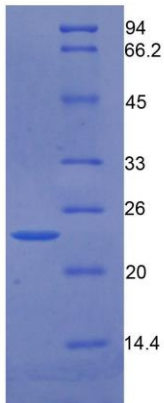


Figure 3. SDS-PAGE

Sample: Active recombinant FGF18, Human

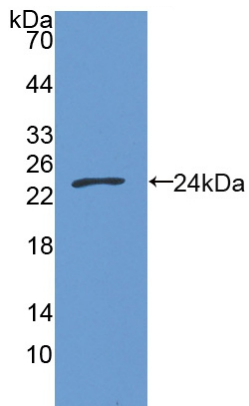


Figure 4. Western Blot

Sample: Recombinant FGF18, Human;

Antibody: Rabbit Anti- Human FGF18 Ab (PAC907Hu01)

[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.