

APC917Hu01 2mg
Active Active Fibroblast Growth Factor 19 (FGF19)
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: Leu25~Lys216

Tags: N-terminal His-tag

Purity: >90%

Endotoxin Level: 0.25eu/μg~0.5eu/μg (determined by the LAL method).

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

Original Concentration: 700μg/mL

Applications: Cell culture; Activity Assays.

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

Predicted isoelectric point: 6.6

Predicted Molecular Mass: 25.1kDa

Accurate Molecular Mass: 27kDa as determined by SDS-PAGE reducing conditions.

[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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LAFSDAGPHVHYGWDPIRLRHLTYSGPHGLSSCFLRIRADGVVDCARGQSAHSLLEIKAVLRRTVAIKGVHSVRYLCMGAD  
GKMQGLLQYSEEDCAFEIEIRPDGYNVYRSEKHRLPVSLSSAKQRQLYKNRGFLPLSHFLPMLPMVPEEPEDLRGHLESDFM  
SSPLETDSMDPFGLVTGLEAVRSPSFEK
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[ACTIVITY]

Fibroblast Growth Factor 19 (FGF19) is a member of the fibroblast growth factor (FGF) family. FGFs are heparin-binding growth factors with a core 120 amino acid (aa) FGF domain that allows for a common tertiary structure. In general, FGFs are expressed during embryonic development and in restricted adult tissues. Human FGF-19 cDNA predicts a 251 aa precursor protein with a 22 aa signal peptide and a 229 aa secreted mature protein with no potential N-linked glycosylation sites. FGF19-FGFR1 is one of paired transcripts mediating the dialogues between extraembryonic membrane and endometrium. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human FGF19 and recombinant human FGFR1. Briefly, FGF19 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to FGFR1-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-FGF19 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 50 µL stop solution to the wells and read at 450 nm immediately. The binding activity of recombinant human FGF19 and recombinant human FGFR1 was shown in Figure 1, the EC₅₀ for this effect is 3.83 ug/mL.

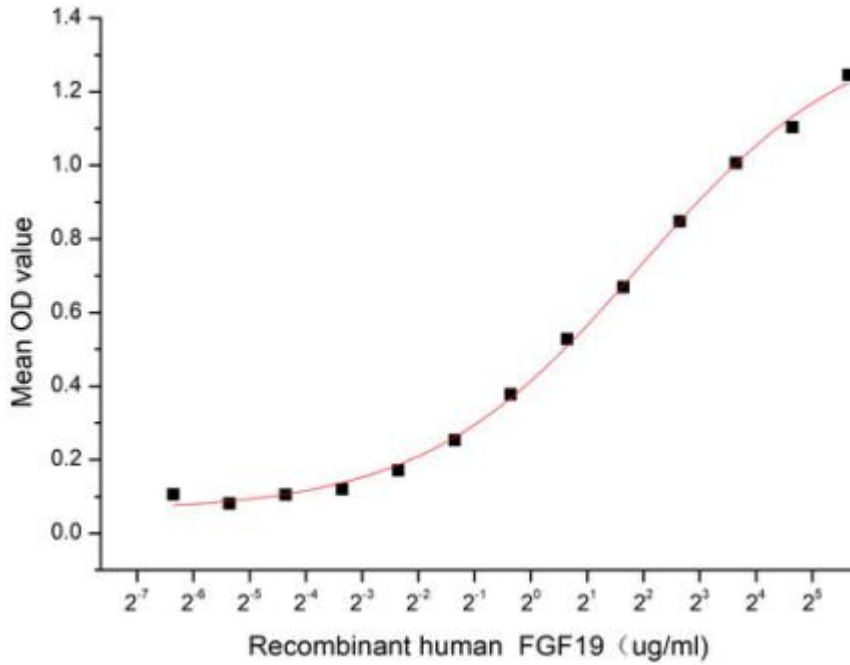


Figure 1. The binding activity of recombinant human FGF19 and recombinant human FGFR1

[IDENTIFICATION]

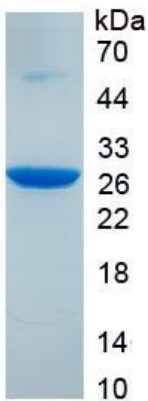


Figure 2. SDS-PAGE

Sample: Active recombinant FGF19, 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.