APC912Hu01 2mg
Active Fibroblast Growth Factor 20 (FGF20)
Organism Species: *Homo sapiens (Human)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Met1~Thr211
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: 8.9
Predicted Molecular Mass: 27.2kDa
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 2-8ºC 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]

MAPLAEVGGF LGGLEGLGQQ VGSHFLLPPA GERPPLLGER RSAAERSARG
GPGAAQLAHL HGILRRRQLY CRTGFHLQIL PDGSVQGTRQ DHSLFGILEF
ISVAVGLVSI RGVDSGLYLG MNDKGELYGS EKLTSECIFR EQFEENWYNT
YSSNIYKHGD TGRRYFVALN KDGTPRDGAR SKRHQKFTHF LPRPVDPERV
PELYKDLLMY T

[ACTIVITY]

Fibroblast growth factor 20 (FGF20) is a member of the fibroblast growth factor family. The fibroblast growth factors 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. It is identified that Fibroblast Growth Factor 20 (FGF20)-FGF receptor 1 (FGFR1) signaling is essential for cochlear hair cell (HC) and supporting cell (SC) differentiation. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human FGF20 and recombinant human FGFR1. Briefly, FGF20 was 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 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-FGF20 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37℃, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃.

Finally, add 50 μL stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant human FGF20 and recombinant human FGFR1 was shown in Figure 1, the EC50 for this effect is 0.17 ug/mL.

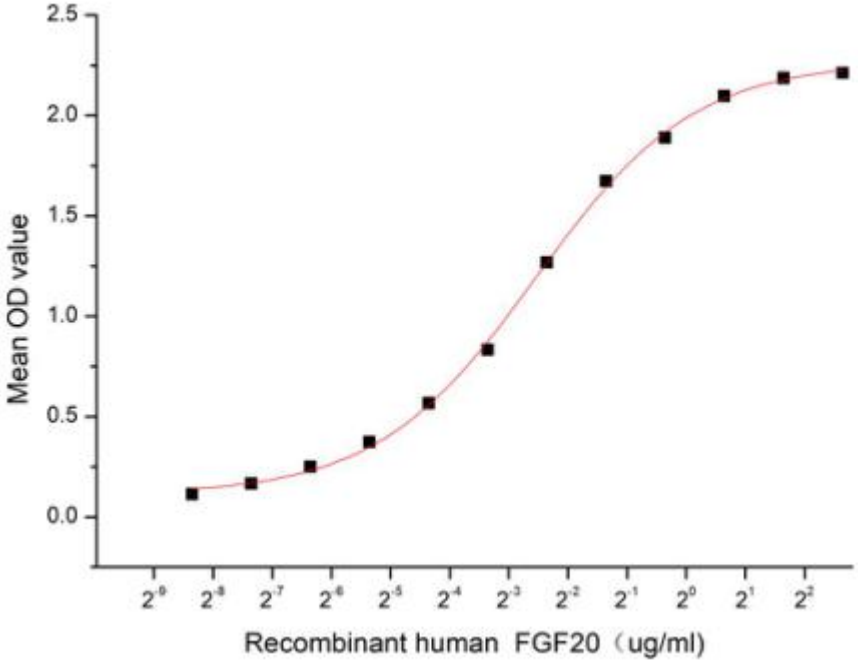

Figure 1. The binding activity of recombinant human FGF20 and recombinant human FGFR1

[IDENTIFICATION]

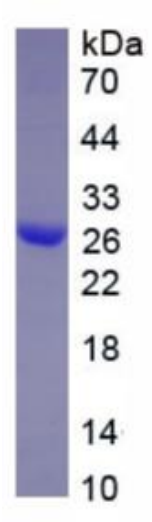

Figure 2. SDS-PAGE

Sample: Active recombinant FGF20, 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.