APA636Hu01 100μg
Active Fibroblast Growth Factor 7 (FGF7)
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: Cys32~Thr194
Tags: N-terminal His and GST Tag
Purity: >95%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% Sarcosyl, 5%Trehalose .
Original Concentration: 200μg/mL
Applications: Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 9.5
Predicted Molecular Mass: 47.8kDa
Accurate Molecular Mass: 48kDa 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]

CNDMTPEQM ATNVNCSSPE
RHTRSYDYME GGDIRVRRLF CRTQWYLRID KRGKVKGTQE MKNNYNIMEI
RTVAVGIVAI KGVESEFYLA MNKEGKLYAK KECNEDCNFK ELILENHYNT
YASAKWTHNG GEMFVALNQK GIPVRGKKTK KEQKTAHFLP MAIT

[ACTIVITY]

Fibroblast Growth Factor 7 (FGF7), also known as keratinocyte growth factor (KGF), is a paracrine signaling protein. It is mainly secreted by mesenchymal cells and specifically acts on epithelial cells. FGF7 plays crucial roles in cell proliferation, migration, and differentiation during development, tissue repair, and regeneration.FGF7 binds to Fibroblast Growth Factor Receptor 2 (FGFR2), particularly the IIIb isoform. This binding initiates a series of signaling cascades that regulate cellular functions essential for tissue homeostasis.Thus a functional ELISA assay was conducted to detect the interaction of recombinant human FGF7 and recombinant rat FGFR2. Briefly, FGF7 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to FGFR2-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-FGF7 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 FGF7 and recombinant rat FGFR2 was shown in Figure 1, the EC50 for this effect is 0.050ug/mL.

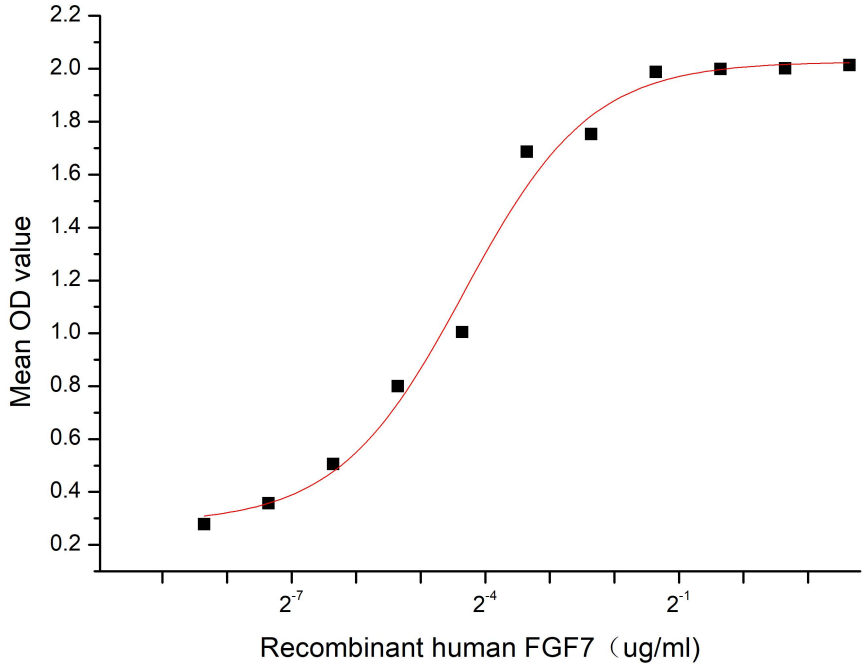

Figure 1. The binding activity of recombinant human FGF7 and recombinant rat FGFR2

[IDENTIFICATION]

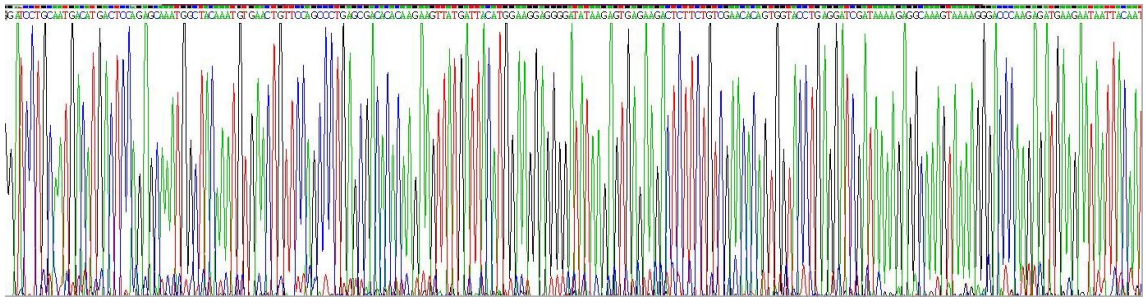

Figure 2. Gene Sequencing (extract)

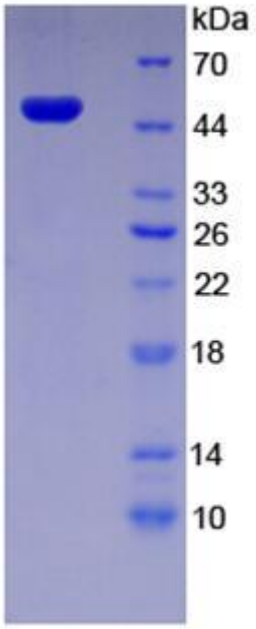

Figure 3. SDS-PAGE

Sample: Active recombinant FGF7, 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.