



APA551Hu01 50µg

Active Fibroblast Growth Factor 2, Basic (FGF2)

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: Phe159~Ser288

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% Sarcosyl, 5% Trehalose.

Original Concentration: 600µg/mL

Applications: Activity Assays.

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

Predicted isoelectric point: 9.7

Predicted Molecular Mass: 16.4kDa

Accurate Molecular Mass: 16kDa 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]

FKDPKRLYCKNGGFFLRHPDGRVDGVREKSDPHIKLQLQAEERGVSISIKGVCANRYLAMKEDGRLLAS
KCVTDECFFFERLESNNYNTYRSRKYTSWYVALKRTGQYKLGSKTGPQKAILFLPMSAKS

[ACTIVITY]

Basic fibroblast growth factor (FGF2), also known as bFGF, is a member of a large family of structurally related heparin-binding proteins (the FGFs) involved in the regulation of cell proliferation, growth and differentiation. It involved in many biological processes including angiogenesis, embryonic development and wound healing. Additionally, FGF2 is a critical component of human embryonic stem cell culture medium. Fibroblast growth factor receptor 4 (FGFR4) is a tyrosine kinase receptor for FGF2, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human FGF2 and recombinant human FGFR4. Briefly, biotin-linked FGF2 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to FGFR4-coated microtiter wells and incubated for 1h at 37 °C . Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then wells were aspirated and washed 5 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 FGF2 and recombinant human FGFR4 was shown in Figure 1, and this effect was in a dose dependent manner.

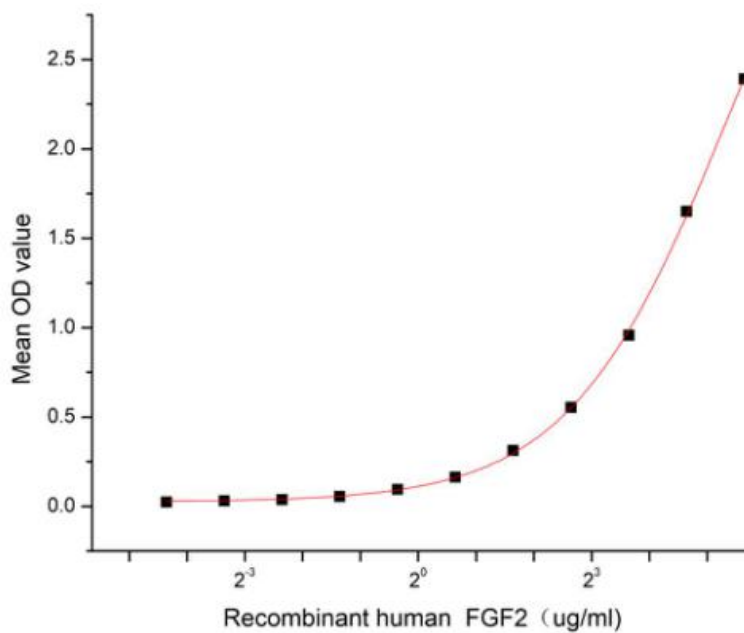


Figure 1. The binding activity of recombinant human FGF2 and recombinant human FGFR4

[IDENTIFICATION]

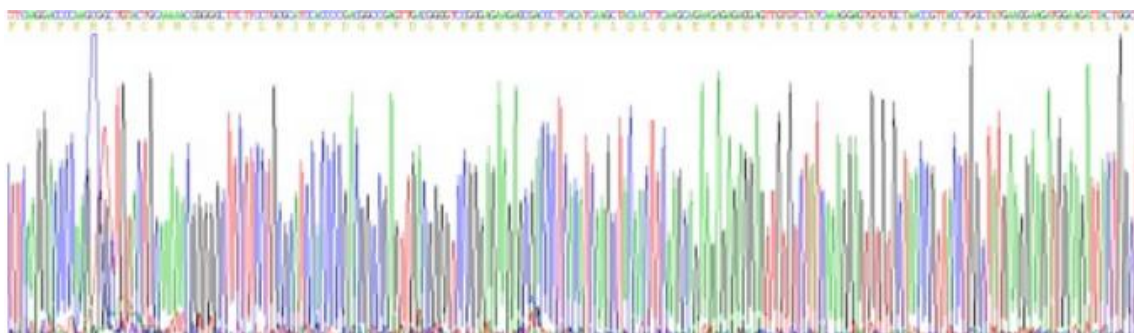


Figure 2. Gene Sequencing (extract)

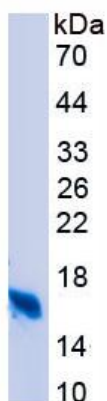


Figure 3. SDS-PAGE

Sample: Active recombinant FGF2, 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.