

APA036Hu02 100µg
Active Fibroblast Growth Factor 9 (FGF9)
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~Ser208

Tags: N-terminal His-tag

Purity: >90%

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

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

Original Concentration: 200µg/mL

Applications: Cell culture; Activity Assays.

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

Predicted isoelectric point: 7.7

Predicted Molecular Mass: 27.1kDa

Accurate Molecular Mass: 25kDa 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]

```
MAPLGEVGNVYFGVQDAVPPFGNVFVLPVDSVLLSDHLGQSEAGGLPRGPAVTDLDHLKGILRRRQLYCR
TGFHLEIFPNGTIQGTRKDHRSRFGILEFISIAVGLVSIKGVDSGLYLG MNEKGELYGSEKLTQECVFPRE
QFEENWYNTYSSNLYKHVDTGRRYYVALNKDGTREGTRTKRHQKFTHFLPRPVDPDKVPELYKDILSQ
S
```

[ACTIVITY]

Fibroblast Growth Factor 9 (FGF9) is a member of the fibroblast growth factor (FGF) family. FGF family members 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. FGF9 was isolated as a secreted factor that exhibits a growth-stimulating effect on cultured glial cells. In nervous system, this protein is produced mainly by neurons and may be important for glial cell development. FGF9 secreted by HSC is a candidate activating ligand for hepatocyte FGFR4 functions, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human FGF9 and recombinant human FGFR4. Briefly, biotin-linked FGF9 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 30 min, 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 FGF9 and FGFR4 was shown in Figure 1, the EC50 for this effect is 0.23 ug/mL.

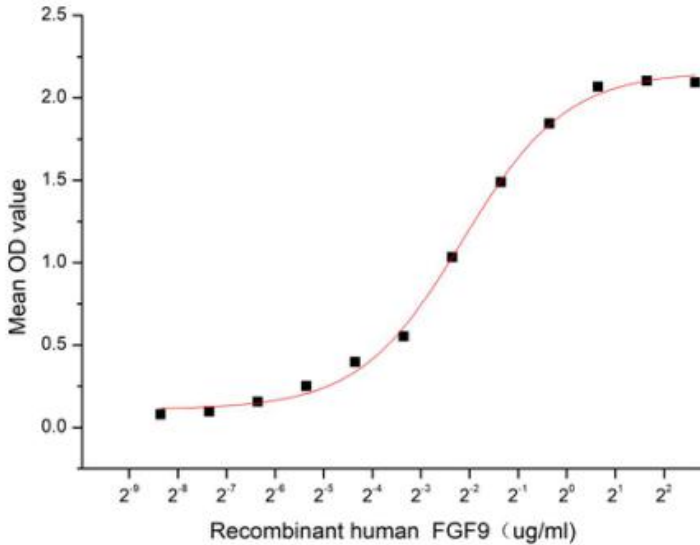


Figure 1. The binding activity of recombinant human FGF9 and recombinant human FGFR4

[IDENTIFICATION]

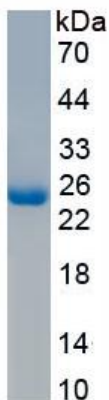


Figure 2. SDS-PAGE

Sample: Active recombinant FGF9, 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.