

APC906Hu01 50µg
Active Fibroblast Growth Factor 3 (FGF3)
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: Ala18~His239

Tags: N-terminal His-tag

Purity: >90%

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

Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, 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: 11.0

Predicted Molecular Mass: 28.7kDa

Accurate Molecular Mass: 33kDa as determined by SDS-PAGE reducing conditions.

Phenomenon explanation:

The possible reasons that the actual band size differs from the predicted are as follows:

1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) 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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AAG PGARLRRDAG GRGGVYEHLG GAPRRRKLYC
ATKYHLQLHP SGRVNGSLEN SAYSILEITA VEVGIVAIRG LFSGRYLAMN
KRGRLYASEH YSAECEFVER IHELGYNTYA SRLYRTVSST PGARRQPSAE
RLWYVSVNGK GRPRRGFKTR RTQKSSLFLP RVLDRDHEM VRQLQSGLP
PPGKGVQPRR RRQKQSPDNL EPSHVQASRL GSQLEASAH
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[ACTIVITY]

Fibroblast Growth Factor 3 (FGF3) also known as INT-2 proto-oncogene protein is a member of the fibroblast growth factor 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. Besides, Fibroblast Growth Factor Receptor 4 (FGFR4) has been identified as an interactor of FGF3, thus a binding ELISA assay was conducted to detect the interaction of recombinant human FGF3 and recombinant human FGFR4. Briefly, biotin-linked FGF3 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 FGF3 and recombinant human FGFR4 was shown in Figure 1, the EC50 for this effect is 0.52 ug/mL.

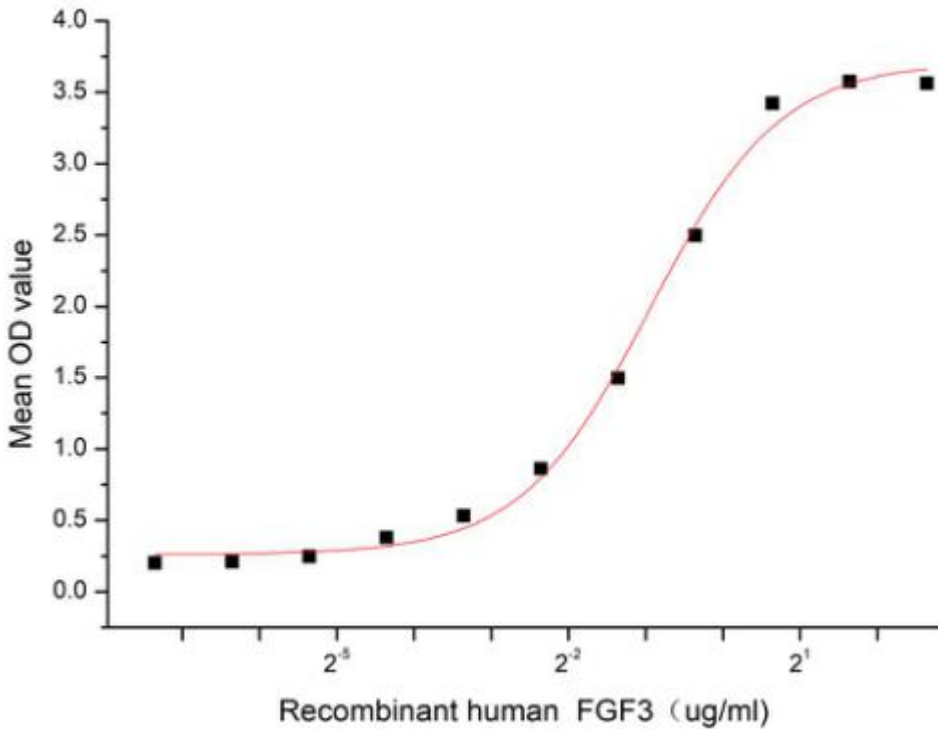


Figure 1. The binding activity of recombinant human FGF3 and recombinant human FGFR4

[IDENTIFICATION]

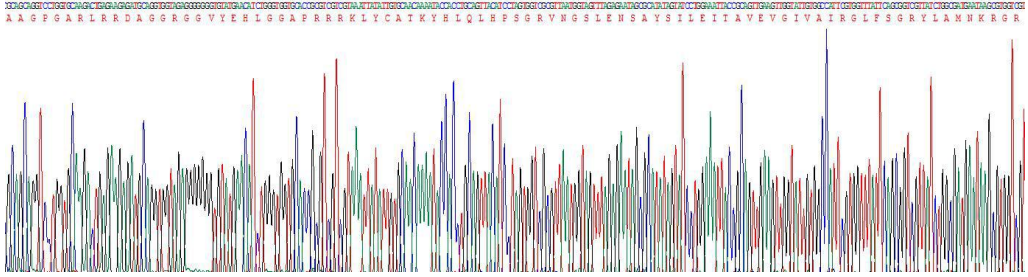


Figure 2. Gene Sequencing (extract)

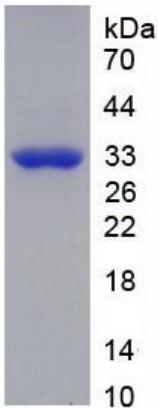


Figure 3. SDS-PAGE

Sample: Active recombinant FGF3, 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.