**APC908Hu01 100μg**
**Active Fibroblast Growth Factor 8, Androgen Induced (FGF8)**
**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:** Gln23~Arg233
**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:** 11.0
**Predicted Molecular Mass:** 27.7kDa
**Accurate Molecular Mass:** 30kDa 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 ]

QEGPGRGP ALGRELASLF RAGREPQGVS
QQHVREQSLV TDQLSRRLIR TYQLYSRTSG KHVQVLANKR INAMAEDGDP
FAKLIVETDT FGSRVRVRGA ETGLYICMNK KGKLIAKSNG KGKDCVFTEI
VLENNYTALQ NAKYEGWYMA FTRKGRPRKG SKTRQHQREV HFMKRLPRGH
HTTEQSLRFE FLNYPPFTRS LRGSQRTWAP EPR

## [ ACTIVITY ]

FGF8 is a heparin binding growth factor belonging to the FGF family, which plays a central role during prenatal development, postnatal growth and regeneration of a variety of tissues, by promoting cellular proliferation and differentiation. Alternate splicing of mouse FGF8 mRNA generates eight secreted isoforms, designated a - h. Only FGF-8a, b, e and f exist in humans. FGF8 plays an important role in the regulation of embryonic development, cell proliferation, cell differentiation and cell migration, and it is required for normal brain, eye, ear and limb development during embryogenesis. FGFR2c, 3c and FGFR4 can be activated by several FGF8 isoforms, thus a binding ELISA assay was conducted to detect the interaction of recombinant human FGF8 and recombinant human FGFR4. Briefly, biotin-linked FGF8 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to FGFR4-coated microtiter wells and incubated for 1h at 37 ℃. 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 ℃. Finally, add 50 μl stop solution to the wells and read at 450 nm immediately. The binding activity of FGF-8 and FGFR4 was shown in Figure 1, the EC50 for this effect is 7.94 ug/mL.

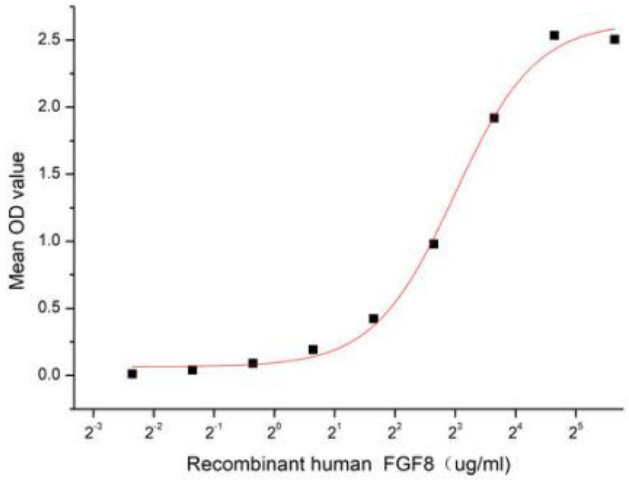


**Figure 1. The binding activity of recombinant human FGF8 with recombinant human FGFR4**

## [ IDENTIFICATION ]

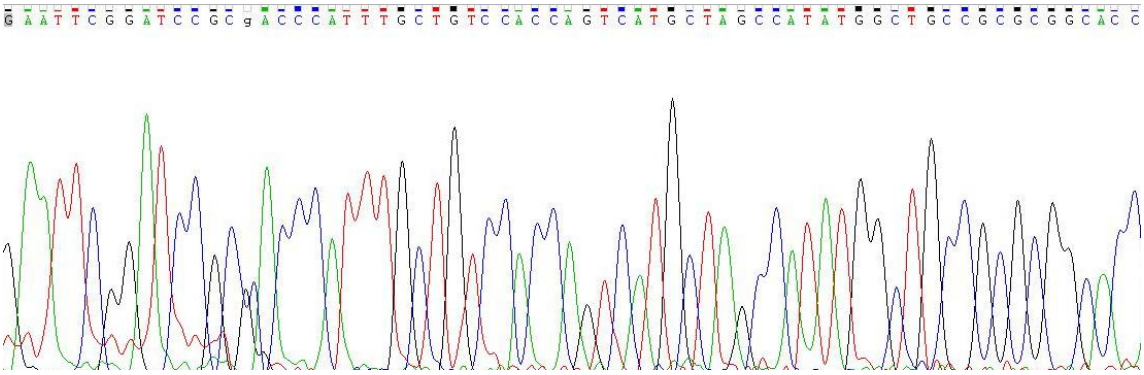

**Figure 2. Gene Sequencing (extract)**

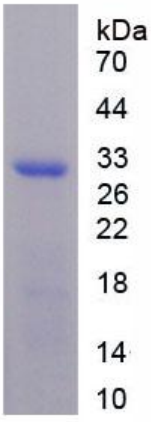

**Figure 3. SDS-PAGE**

**Sample: Active recombinant FGF8, 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.