

**APA551Bo01 100µg**  
**Active Fibroblast Growth Factor 2, Basic (FGF2)**  
**Organism Species: *Bos taurus*; Bovine (Cattle)**  
***Instruction manual***

FOR RESEARCH USE ONLY  
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

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1st Edition (Apr, 2016)

## **[ PROPERTIES ]**

**Source:** Prokaryotic expression.

**Host:** *E. coli*

**Residues:** Pro10~Ser155

**Tags:** N-terminal His-tag

**Purity:** >98%

**Buffer Formulation:** 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.

**Applications:** Cell culture; Activity Assays.

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

**Predicted isoelectric point:** 9.6

**Predicted Molecular Mass:** 20.1kDa

**Accurate Molecular Mass:** 20/23kDa as determined by SDS-PAGE reducing conditions.

## **[ 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 ]**

```
P ALPEDGGSGA FPPGHFKDPK RLYCKNGGFF LRIHPDGRVD
GVREKSDPHI KLQLQAEERG VVSIKGVCAN RYLAMKEDGR LLASKCVTDE
CFFFERLESN NYNTYRSRKY SSWYVALKRT GQYKLGPKTG PGQKAILFLP
MSAKS
```

## **[ ACTIVITY ]**

Basic fibroblast growth factor (FGF2), also known as bFGF, FGF- $\beta$  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. Besides, Caspase 1 (CASP1) has been identified as an interactor of FGF2, thus a binding ELISA assay was conducted to detect the interaction of recombinant bovine FGF2 and recombinant bovine CASP1. Briefly, FGF2 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to CASP1-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-FGF2 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 $\mu$ L stop solution to the wells and read at 450nm immediately. The binding activity of FGF2 and CASP1 was shown in Figure 1, and this effect was in a dose dependent manner.

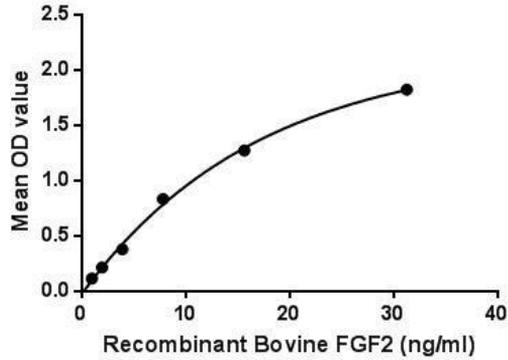


Figure 1. The binding activity of FGF2 with CASP1.

## [ IDENTIFICATION ]

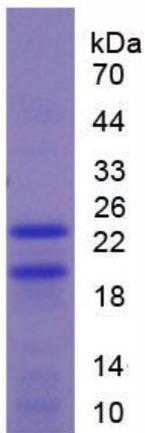
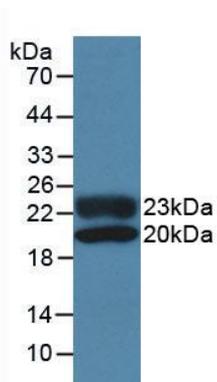


Figure 2. SDS-PAGE

Sample: Active recombinant FGF2, Bovine



**Figure 3. Western Blot**

**Sample: Recombinant FGF2, Bovine;**

**Antibody: Rabbit Anti-Bovine FGF2 Ab (PAA551Bo01)**

### **[ IMPORTANT NOTE ]**

The kit is designed for in vitro and research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.