

Active Fibroblast Growth Factor 23 (FGF23) Instruction Manual

SBPA168Hu03

Homo sapiens (Human)

Buffer Formulation

20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

Traits

Freeze-dried powder

Purity

> 95%

Isoelectric Point

7.9

Applications

Cell culture; Activity Assays.

ACTIVITY TEST

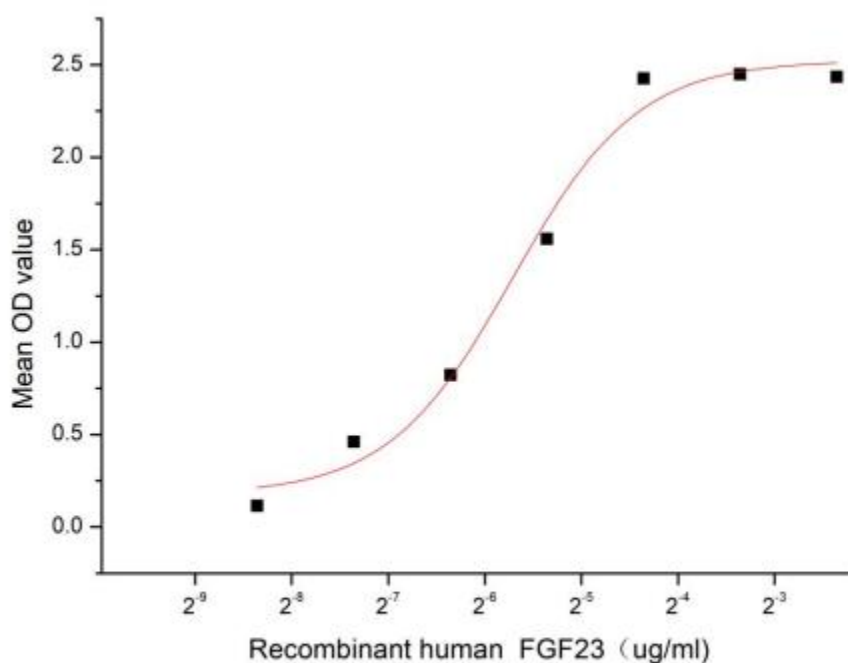


Figure 1. The binding activity of FGF23 with FGFR1

Fibroblast growth factor 23 or FGF23 is a member of the fibroblast growth factor (FGF) family which is responsible for phosphate and vitamin D metabolism. The main function of FGF23 seems to be regulation of phosphate concentration in plasma. FGF23 decreases

the reabsorption and increases excretion of phosphate and suppress 1-alpha-hydroxylase, reducing its ability to activate vitamin D and subsequently impairing calcium absorption. Besides, Fibroblast Growth Factor Receptor 1 (FGFR1) has been identified as an interactor of FGF23, thus a binding ELISA assay was conducted to detect the interaction of recombinant human FGF23 and recombinant human FGFR1. Briefly, FGF23 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to FGFR1-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-FGF23 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, 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 450nm immediately. The binding activity of FGF23 and FGFR1 was shown in Figure 1, and this effect was in a dose dependent manner. the EC50 for this effect is 0.0191 ug/mL.

USAGE

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

STABILITY

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.

Image

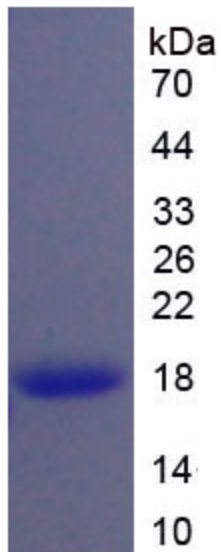


Figure. SDS-PAGE

[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.