Active Fibroblast Growth Factor 21 (FGF21) Instruction Manual

SBPC325Ra01

Rattus norvegicus (Rat)

Buffer Formulation	100mMNaHCO$_3$, 500mMNaCl, pH8.3, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Traits	Freeze-dried powder
Purity	> 90%
Isoelectric Point	5.6
Applications	Cell culture; Activity Assays.

ACTIVITY TEST

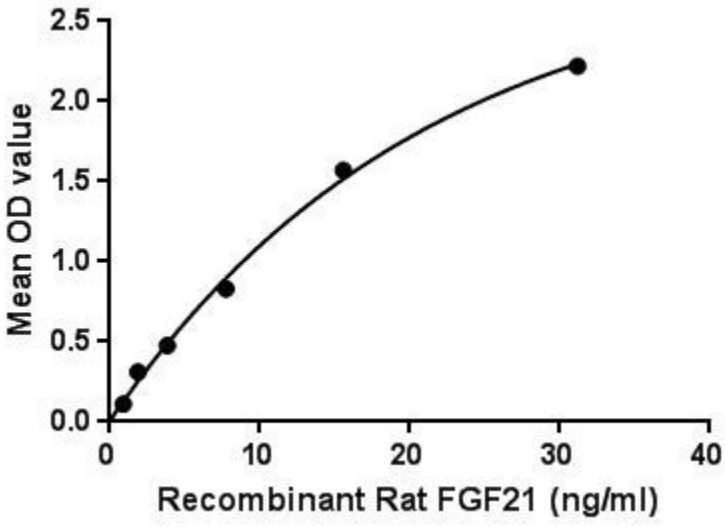

Figure. The binding activity of FGF21 with FGFR1.

Fibroblast growth factor 21 (FGF21) is a member of the fibroblast growth factor (FGF) family and specifically a member of the endocrine subfamily which includes FGF23 and FGF15/19. 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. FGF21 action through one of the FGF21 receptors thus requires interaction with a co-receptor, designated β-klotho. Besides, Fibroblast Growth Factor Receptor 1 (FGFR1) has been identified as an interactor of FGF21, thus a binding ELISA assay was conducted to detect the interaction of recombinant rat FGF21 and recombinant rat FGFR1. Briefly, FGF21 were diluted

serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100μL were then transferred to FGFR1-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-FGF21 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℃. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of FGF21 and FGFR1 was shown in Figure 1, and this effect was in a dose dependent manner.

USAGE

Reconstitute in 100mM NaHCO3, 500mM NaCl (pH8.3) 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

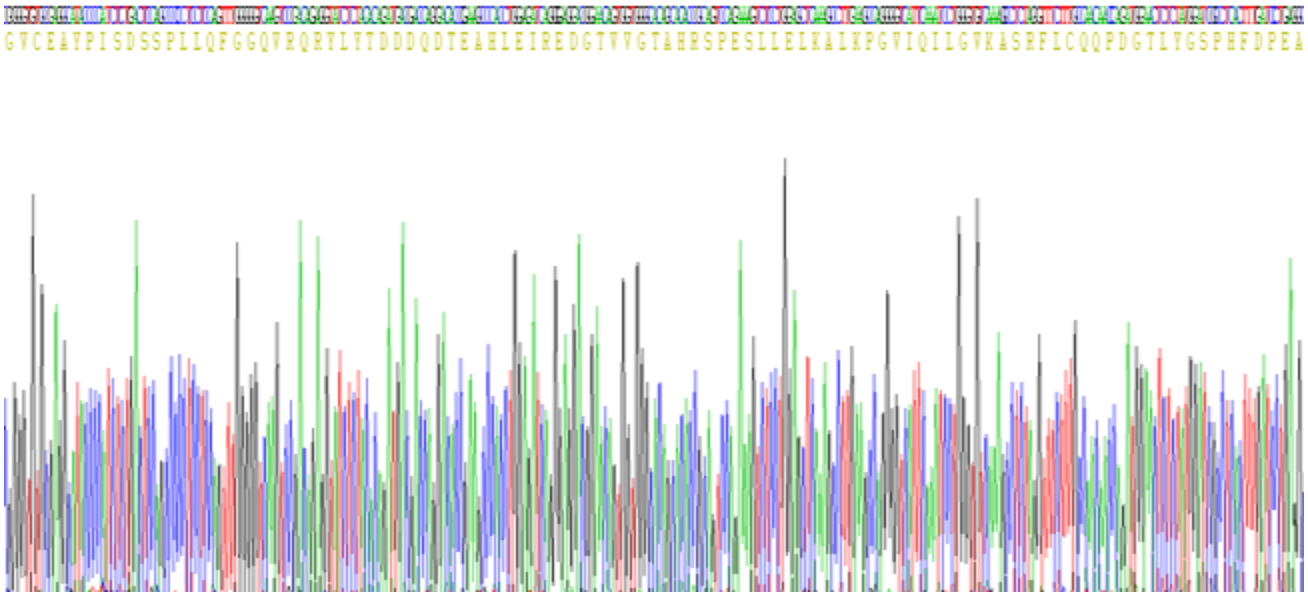

Figure. SDS-PAGE

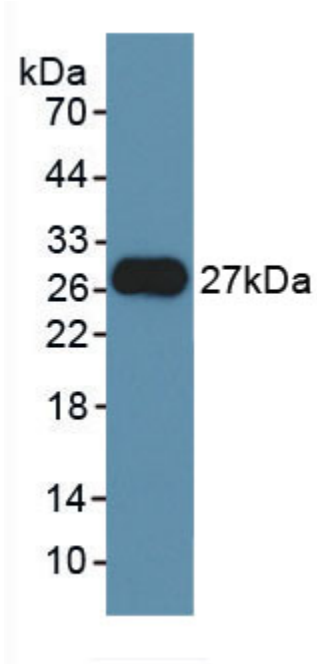

Figure. Western Blot

[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.