

Active Klotho (KL) Instruction Manual

SBPH378Ra01

Rattus norvegicus (Rat)

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

> 90%

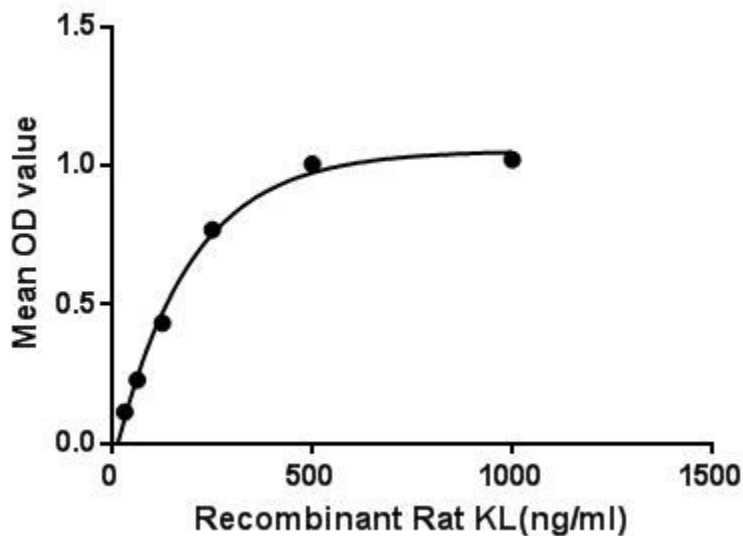
Isoelectric Point

6.4

Applications

Cell culture; Activity Assays.

ACTIVITY TEST



Klotho (KL) is a transmembrane protein that, in addition to other effects, provides some control over the sensitivity of the organism to insulin and appears to be involved in aging. The Klotho protein is a novel β -glucuronidase capable of hydrolyzing steroid β -glucuronides. Genetic variants in KLOTHO have been associated with human aging, and Klotho protein has been shown to be a circulating factor detectable in serum that declines with age. The binding of certain fibroblast growth factors (FGF's) viz., FGF19, FGF20, and FGF23, to their fibroblast growth factor receptors, is promoted via their interactions as co-receptors with β -Klotho. Besides, Fibroblast Growth Factor 23 (FGF23) has been identified as an interactor of KL, thus a binding ELISA assay was conducted to detect the interaction of recombinant rat KL and recombinant rat FGF23. Briefly, KL were diluted

serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ L were then transferred to FGF23-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-KL 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 μ L stop solution to the wells and read at 450nm immediately. The binding activity of KL and FGF23 was shown in Figure 1, and this effect was in a dose dependent manner.

Figure. The binding activity of KL with FGF23.

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

CTTGAGGGGCTTCCGCGATTGCTGGGAGGGTGGACGATTCAGTGGCCGCCTCCCTGATGAGCCGAGTCATCCTGGGAGTGGATGACGATGAGGCTTATTGAGTGGCCGGTGGCCGAGGAGCAACTTACTGGTGGATCCCTGGATCCGCCTGAGTAACCTTATCGA
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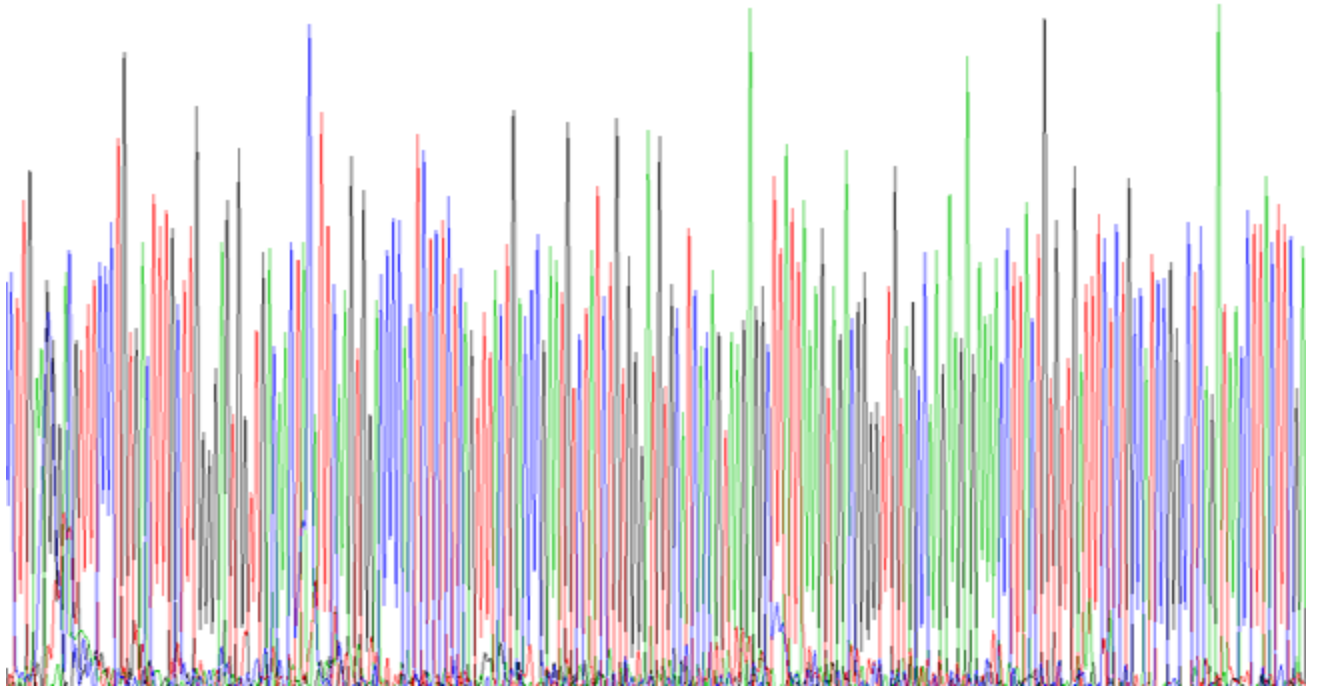


Figure. Western Blot

[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.