

Active Interleukin 22 (IL22) Instruction Manual

SBPC016Hu01

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

7.8

Applications

Cell culture; Activity Assays.

ACTIVITY TEST

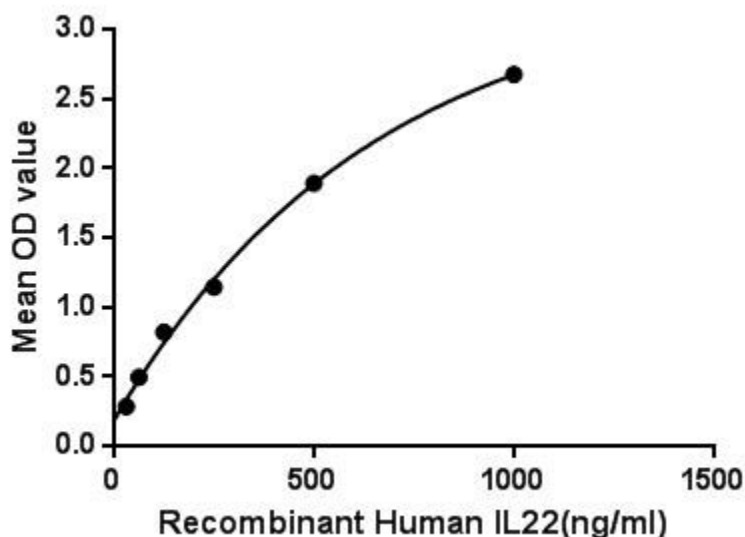


Figure. The binding activity of IL22 with IL10Rb.

Interleukin 22 (IL22) is a member of a group of cytokines called the IL-10 family or IL-10 superfamily, a class of potent mediators of cellular inflammatory responses. It shares use of IL-10R2 in cell signaling with other members of this family, IL-10, IL-26, IL-28A/B and IL-29. IL-22 is produced by activated NK and T cells and initiates innate immune responses against bacterial pathogens especially in epithelial cells such as respiratory and gut epithelial cells. IL-22 biological activity is initiated by binding to a cell-surface complex composed of IL-22R1 and IL-10R2 receptor chains and further regulated by interactions with a soluble binding protein. IL-22 can contribute to immune disease through the stimulation of inflammatory responses, S100s and defensins. IL-22

also promotes hepatocyte survival in the liver and epithelial cells in the lung and gut similar to IL-10. Besides, Interleukin 10 Receptor Beta (IL10Rb) has been identified as an interactor of IL22, thus a binding ELISA assay was conducted to detect the interaction of recombinant human IL22 and recombinant human IL10Rb. Briefly, IL22 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to IL10Rb-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-IL22 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 50µL stop solution to the wells and read at 450nm immediately. The binding activity of IL22 and IL10Rb was shown in Figure 1, and this effect was in a dose dependent manner.

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

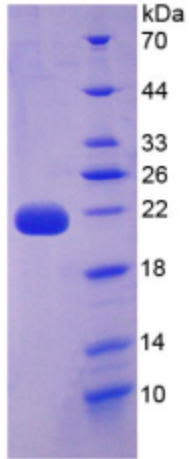


Figure. SDS-PAGE

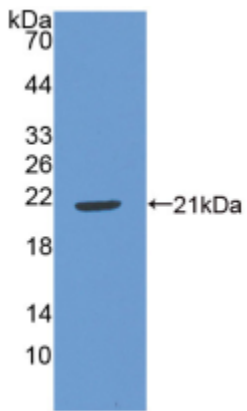


Figure. Western Blot

[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.