

Active Interleukin 10 (IL10)

Instruction Manual

SBPA035Ra01

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

> 95%

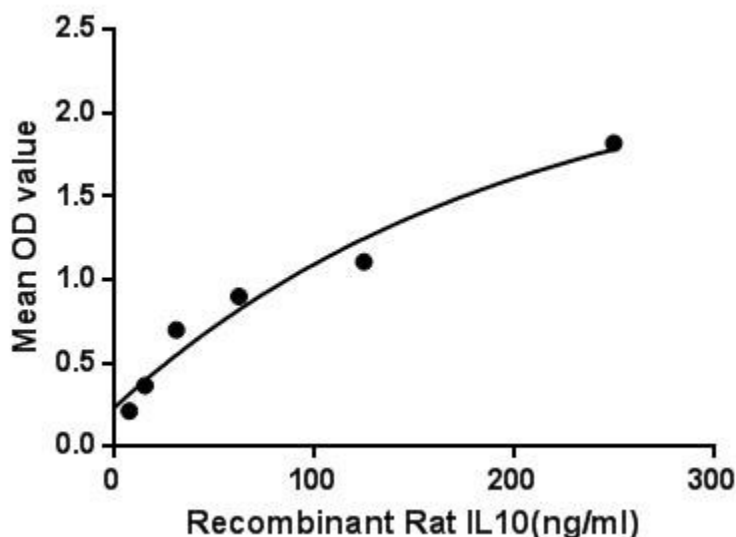
Isoelectric Point

9.1

Applications

Cell culture; Activity Assays.

ACTIVITY TEST



Interleukin 10 (IL10), also known as human cytokine synthesis inhibitory factor (CSIF), is an anti-inflammatory cytokine. IL10 is a cytokine with multiple, pleiotropic, effects in immunoregulation and inflammation. It downregulates the expression of Th1 cytokines, MHC class II antigens, and co-stimulatory molecules on macrophages. It also enhances B cell survival, proliferation, and antibody production. IL10 can block NF- κ B activity, and is involved in the regulation of the JAK-STAT signaling pathway. Investigation also has shown that IL-10 predominantly inhibits lipopolysaccharide (LPS) and bacterial product mediated induction of the pro-inflammatory cytokines TNF α , IL-1 β , IL-12 and IFN γ secretion from Toll-Like Receptor (TLR) triggered myeloid lineage cells. Besides, Interleukin 10 Receptor Alpha (IL10Ra) has been identified as an interactor of IL10, thus

a binding ELISA assay was conducted to detect the interaction of recombinant rat IL10 and recombinant rat IL10Ra. Briefly, IL10 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to IL10Ra-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-IL10 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 IL10 and IL10Ra was shown in Figure 1, and this effect was in a dose dependent manner. Figure . The binding activity of IL10 with IL10Ra.

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

SKGHSIRGDNWCTHFPVSQTHMLRELRAAFSQVKTFFQKKDQLDNILLTDSLLQDFKGYLGCQQLSEMIKFYLVVMPQAENHGPEIKEHLNSLGEKLTIV

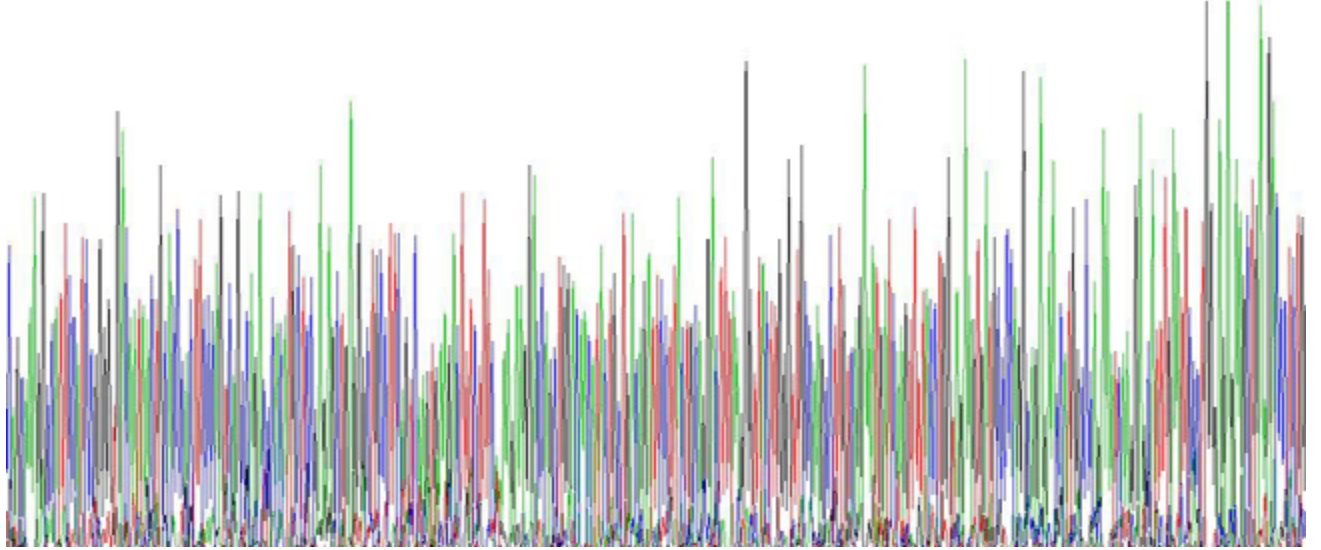


Figure. Gene Sequencing (Extract)

Image

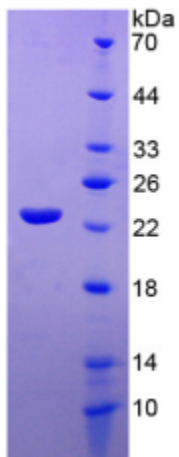


Figure. SDS-PAGE

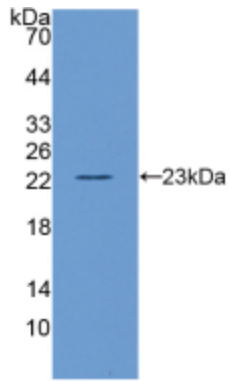


Figure . Western Blot

[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.