Active Interleukin 10 (IL10)

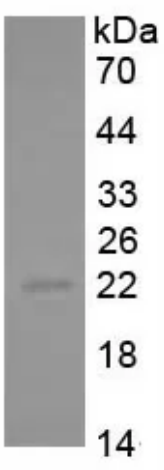
Catalog#:PHM12090

概述（Summary）

别称（Alternative Names）	CSIF; IL10A; TGIF; Cytokine Synthesis Inhibitory Factor
纯度（Purity）	Greater than 97% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Ser19-Ser178】
Accession #	P18893
表达宿主（Host）	293F
种属（Species）	Mus musculus (Mouse)
预测分子量（Predicted MW）	20.4 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Major immune regulatory cytokine that acts on many cells of the immune system where it has profound anti-inflammatory functions, limiting excessive tissue disruption caused by inflammation. Mechanistically, IL10 binds to its heterotetrameric receptor comprising IL10RA and IL10RB leading to JAK1 and STAT2-mediated phosphorylation of STAT3. In turn, STAT3 translocates to the nucleus where it drives expression of anti-inflammatory mediators. Targets antigen-presenting cells (APCs) such as macrophages and monocytes and inhibits their release of pro-inflammatory cytokines including granulocyte-macrophage colony-stimulating factor /GM-CSF, granulocyte colony-stimulating

factor/G-CSF, IL-1 alpha, IL-1 beta, IL-6, IL-8 and TNF-alpha. Interferes also with antigen presentation by reducing the expression of MHC-class II and co-stimulatory molecules, thereby inhibiting their ability to induce T cell activation. In addition, controls the inflammatory response of macrophages by reprogramming essential metabolic pathways including mTOR signaling.

电泳图（SDS-PAGE image）



Greater than 97% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

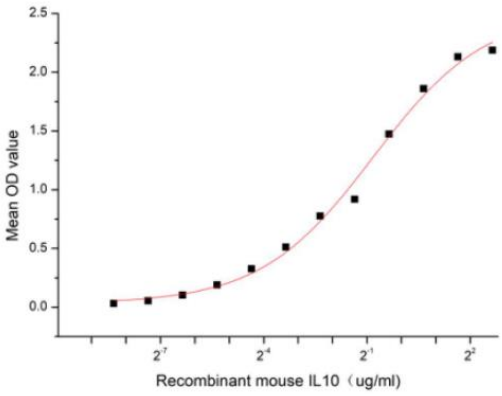


Figure 1. The binding activity of recombinant mouse IL10 and recombinant horse IL6

Interleukin 10 (IL10) is an anti-inflammatory cytokine primarily produced by immune cells, including macrophages, T cells, and B cells. It plays a crucial role in limiting excessive immune responses, preventing tissue damage, and maintaining immune homeostasis. IL10 suppresses pro-inflammatory cytokine production and antigen presentation, making it vital in controlling autoimmune diseases, infections, and chronic inflammation. Its signaling through the IL10 receptor (IL10R) activates the JAK-STAT pathway, modulating immune cell function. Dysregulation of IL10 is associated with inflammatory disorders and cancer.Besides,Interleukin 6 (IL6) has been identified as an interactor of IL10, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant mouse IL10 and recombinant horse IL6 . Briefly, biotin-linked IL10 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100µl were then transferred to IL6-coated microtiter wells

and incubated for 1h at 37℃. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then wells were aspirated and washed 5 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 IL10 and IL6 was shown in Figure 1, the EC50 for this effect is 0.56μg/mL.

注意事项（Note）

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