

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant Human Interleukin-10 (rHuIL-10)

Catalog Number: PR1057

Source: Escherichia coli.

Quantity: 2µg/10µg/1.0mg

Description

Interleukin 10, also known as cytokine synthesis inhibitory factor (CSIF), is the charter member of the IL-10 family of α -helical cytokines that also includes IL-19, IL-20, IL-22, IL-24, and IL-26/AK155. IL-10 is secreted by many activated hematopoietic cell types as well as hepatic stellate cells, keratinocytes, and placental cytotrophoblasts. Whereas human IL-10 is active on mouse cells, mouse IL-10 does not act on human cells. IL-10 is a 178 amino acid molecule that contains two intrachain disulfide bridges and is expressed as a 36 kDa noncovalently associated homodimer. The IL-10 dimer binds to two IL-10 R α /IL-10R1 chains, resulting in recruitment of two IL-10 R β /IL-10R2 chains and activation of a signaling cascade involving JAK1, TYK2, and STAT3. IL-10R β does not bind IL-10 by itself but is required for signal transduction. IL-10 is a critical molecule in the control of viral infections and allergic and autoimmune inflammation. It promotes phagocytic uptake and Th2 responses but suppresses antigen presentation and Th1 proinflammatory responses.

Molecular Weight:

Approximately 18.6kDa, a single non-glycosylated polypeptide chain containing 161 amino acids.

Purity:

>95% by SDS-PAGE and HPLC analyses.

Biological Activity:

Determined by the dose-dependent co-stimulation (with murine IL-4) of MC/9 cells. The ED50 was found to be \leq 2 ng/ml, corresponding to a specific activity of \geq 5 x 10⁵ units/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2mm filtered concentrated solution in PBS, pH 7.4.

AA Sequence:

M S P G Q G T Q S E N S C T H F P G N L P N M L R D L
R D A F S R V K T F F Q M K D Q L D N L L L K E S L L
E D F K G Y L G C Q A L S E M I Q F Y L E E V M P Q A
E N Q D P D I K A H V N S L G E N L K T L R L R L R R
C H R F L P C E N K S K A V E Q V K N A F N K L Q E K
G I Y K A M S E F D I F I N Y I E A Y M T M K I R N

Endotoxin:

Less than 1EU/mg of rHuIL-10 as determined by LAL method.

Reconstitution:

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at $<-20^{\circ}\text{C}$. Further dilutions should be made in appropriate buffered solutions.

Storage:

This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

MADE IN CHINA

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Usage:

HUMAN USE. Made in China

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. NOT FOR

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