金斯瑞生物科技
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DATASHEET
Version 20181206

IL-10, Human

Cat. No.: Z02707-10

Size: 10.0 ug

Synonyms: Interleukin-10 (IL-10), Human;

Description:

Interleukin 10, also known as cytokine synthesis inhibitory factor (CSIF), is the charter member of the IL-10 family of ª-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 Rª/IL-10R1 chains, resulting in recruitment of two IL-10 Rß/IL-10R2 chains and activation of a signaling cascade involving JAK1, TYK2, and STAT3 . IL-10Rß 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.

Amino Acid Sequence:

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00001 SPGQGTQSEN SCTHFPGNLP NMLRDLRDAF SRVKTFFQMK
00041 DQLDNLLLKE SLLEDFKGYL GCQALSEMIQ FYLEEVMPQA
00081 ENQDPDIKAH VNSLGENLKT LRLRLRRCHR FLPCENKSKA
00121 VEQVKNAFNK LQEKGIYKAM SEFDIFINYI EAYMTMKIRN
00161
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Source: *E. coli*

Species: Human

Biological Activity: Fully biologically active when compared to standard. The ED_{50} as determined by a cell proliferation assay using murine MC/9-2 cells is less than 1 ng/ml, corresponding to a specific activity of > 1.0×10^6 IU/mg.

Molecular Weight: Approximately 18.6 kDa, a single non-glycosylated polypeptide chain containing 160 amino acids.

Formulation: Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.

Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

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 °C. Further dilutions should be made in appropriate buffered solutions.

Purity: > 95 % by SDS-PAGE and HPLC analyses.

Endotoxin Level: Less than 1 EU/μg of rHuIL-10 as determined by LAL method.

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.

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