

# Growth Factor Data Sheet

GoldBio growth factors are manufactured for **RESEARCH USE ONLY** and cannot be sold for human consumption!

Interleukin-10 (IL10), also known as cytokine synthesis inhibitory factor (CSIF), is the charter member of the IL10 family of F-helical cytokines that also includes IL19, IL20, IL22, IL24, and IL26/AK155. While the gene which encodes IL10 is comprised of 178 amino acids, the active protein only contains 160 amino acids. IL10 contains two intrachain disulfide bridges and is expressed as a 36 kDa noncovalently associated homodimer. The IL10 dimer binds to two IL10 RF/IL10R1 chains, resulting in the recruitment of two IL10 RH/IL10R2 chains and the activation of a signaling cascade involving JAK1, TYK2, and STAT3. IL10RH does not bind IL10 directly, but is required for signal transduction. IL10 is also a critical molecule in the control of viral infections, allergic reactions and autoimmune inflammation. IL10 promotes phagocytic uptake and Th2 responses, but suppresses antigen presentation and Th1 pro-inflammatory responses. IL10 is secreted by many activated hematopoietic cell types, as well as hepatic stellate cells, keratinocytes and placental cytotrophoblasts. Human IL10 is active on mouse cells; however mouse IL10 does not act on human cells.

<b>Catalog Number</b>	<b>1110-10</b>
<b>Product Name</b>	<b>IL10, Human</b> Recombinant Human Interleukin-10 IL10 Interleukin 10 Cytokine Synthesis Inhibitory Factor (CSIF)
<b>Source</b>	<i>Escherichia coli</i>
<b>MW</b>	~18.6 kDa (160 amino acids)
<b>Sequence</b>	SPGQGTQSEN SCTHFPGNLP NMLRDLRDAF SRVKTFFQMK DQLDNLLLKE SLLEDFKGYL GCQALSEMIQ FYLEEVMPPQA ENQDPDIKAH VNSLGENLKT LRLRLRRCHR FLPCENKSKA VEQVKNAFNK LQEKGIYKAM SEFDIFINYI EAYMTMKIRN
<b>Accession Number</b>	<a href="#">P22301</a>
<b>Purity</b>	>95% by SDS-PAGE and HPLC analyses
<b>Biological Activity</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by a cell proliferation assay using murine MC/9-2 cells is less than 1.0 ng/ml, corresponding to a specific activity of >1.0 × 10 <sup>6</sup> IU/mg.
<b>Formulation</b>	Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.
<b>Storage/Handling</b>	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage. The reconstituted sample can be apportioned into working aliquots and stored at -80 °C for up to 6 months. Avoid repeated freeze/thaw cycles.
<b>Reconstitution</b>	The sample should be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a siliconized tube using PBS that contains a 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Reconstituted solutions are stable for up to one week at 2-8°C. Stock solutions should be aliquoted and stored at -80°C. Further dilutions should be made in appropriate buffered solutions containing BSA or serum.