

# Growth Factor Data Sheet

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

Interleukin 4 is a pleiotropic cytokine that regulates diverse T-cell and B-cell responses, including cell proliferation, survival and gene expression. Produced by mast cells, T-cells and bone marrow stromal cells, IL4 regulates the differentiation of naive CD4+ T-cells into helper Th2 cells, characterized by their cytokine-secretion profile that includes secretion of IL4, IL5, IL6, IL10, and IL13, which favor a humoral immune response. Another dominant function of IL4 is the regulation of immunoglobulin class switching to the IgG1 and IgE isotypes. Excessive IL4 production by Th2 cells has been associated with elevated IgE production and allergy.

<b>Catalog Number</b>	<b>1110-04</b>
<b>Product Name</b>	<b>IL4, Human</b> Recombinant Human Interleukin 4 IL-4 B Cell Growth Factor 1, BCGF-1 B Cell Stimulatory Factor 1, BSF1
<b>Source</b>	<i>Escherichia coli</i>
<b>MW</b>	~15.0 kDa (130 amino acid)
<b>Sequence</b>	HKCDITLQEI IKTLSLSTEQ KTLCTELTVT DIFAASKNTT EKETFCAAT VLRQFYSHHE KDTRCLGATA QQFHRHKQLI RFLKRLDRNL WGLAGLNSCP VKEANQSTLE NFLERLKTIM REKYSKCSS
<b>Accession Number</b>	<a href="#">P05112</a>
<b>Purity</b>	>98 % 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 human TF-1 cells is less than 0.2 ng/ml, corresponding to a specific activity of >5.0 × 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.