

Growth Factor Data Sheet

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

Interleukin-4 (IL4) is a pleiotropic cytokine that induces differentiation of naive helper T-cells (Th0 cells) to Th2-cells, and is produced by mast cells, activated T-cells and bone marrow stromal cells. It has many biological roles, including the stimulation of activated B-cell and T-cell proliferation, and the differentiation of CD4+ T-cells into Th2-cells. IL4 can enhance both the secretion and cell surface expression of IgE and IgG1. IL4 also regulates the expression of the low affinity Fc receptor for IgE (CD23) on both lymphocytes and monocytes. The rat IL4 shares about 40-45% amino acid sequence identity with human, mouse, rhesus macaque IL4, and they are species-specific in their activities.

Catalog Number	1510-04
Product Name	IL4, Rat Recombinant Rat Interleukin-4 IL4 Interleukin 4 B-Cell Stimulatory Factor 1 (BSF1)
Source	<i>Escherichia coli</i>
MW	~14.0 kDa (125 amino acids)
Sequence	HGCNDSPLRE IINTLNQVTE KGTPCTEMFV PDVLTATRNT TENELICRAS RVLRFYFPR DVPPCLKNKS GVLGELRKLK RGVSGLNSLR SCTVNESTLT TLKDFLESLE SILRGKYLQS CTSMS
Accession Number	P20096
Purity	>95% by SDS-PAGE and HPLC analyses
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using rat splenocytes is less than 1.0 ng/ml, corresponding to a specific activity of >1.0 × 10 ⁶ IU/mg.
Formulation	Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.
Storage/Handling	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.
Reconstitution	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.