

RECOMBINANT HUMAN IL-4 TAG-FREE GMP

Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder
Gene ID	3562
Description	Interleukin-4 (IL-4) is a pleiotropic cytokine that induces differentiation of naive helper T cells (Th0 cells) to Th2 cells and 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. It enhances both secretion and cell surface expression of IgE and IgG1 and also regulates the expression of the low affinity Fc receptor for IgE (CD23) on both lymphocytes and monocytes. The human IL-4 has a compact, globular fold, stabilised by 3 disulphide bonds. The human IL-4 shares about 40 % a.a. sequence identity with mouse/rat IL-4 and they are species-specific in their activities.
Catalog Number	GE20.1/GE20.2
Unit Size	20µg/100µg
Source	E. coli
Molecular Weight	Approximately 15.0 kDa, a single non-glycosylated polypeptide chain containing 129 amino acids.
AA Sequence	HKCDITLQEIIKTLNLSLTEQ KTLCTELTVT DIFAASKNTT EKETFCAAAT VLRQFYSHHE KDTRCLGATA QQFHRHKQLI RFLKRLDRNL WGLAGLNSCP VKEANQSTLE NFLERLKTIM REKYSKCSS
Purity (HPLC)	> 98%
Purity (SDS-PAGE)	> 98%
Biological Activity	The ED ₅₀ as determined by a cell proliferation assay using human TF-1 cells is < 0.2 ng/mL, corresponding to a specific activity of > 5.0 × 10 ⁶ Units/mg.
Host Cell DNA Residue	< 0.02 ng/µg of protein tested by DNA Fluorescent Staining method.
Host Cell Protein Residue	< 0.5 ng/µg of protein tested by ELISA.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
Sterility	Negative
Endotoxin	< 0.01EU/µg as determined by LAL gel-clot method.
Mycoplasma	Negative
Reconstitution	Before use this product, please read the direction below carefully. <ol style="list-style-type: none"> 1. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. 2. Reconstitute in a sterile aqueous buffer to an appropriate concentration. 3. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Stability & Storage	For long term storage, the product should be stored ≤ -20 °C. Please avoid repeated freeze-thaw cycles after reconstitution. <ol style="list-style-type: none"> 1. At least 24 months from date of receipt, ≤ -20 °C as supplied; 2. 1 month, 2 to 8 °C under sterile conditions after reconstitution; 3. 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended.

