GFM18 Recombinant Mouse IL-4

Description

Interleukin-4 (IL-4) is an immunomodulatory cytokine that functions to induce naive helper T cells to differentiate into type 2 T helper (Th2) cells. Th2 cells subsequently produce more IL-4 in a positive feedback loop. IL-4 also promotes immunoglobulin IgG to IgE isotype switching on B cells. IL-4 binds the IL-4Rα receptor to activate STAT6 signaling.

Length	134 aa
Molecular Weight	15.2 kDa
Source	E. coli
Accession Number	P08700
Purity	≥95% determined by reducing and non-reducing SDS-PAGE

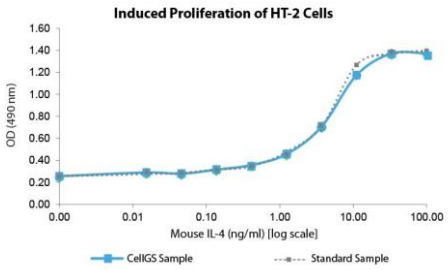
Specifications

Alternative Names	Interleukin-3, interleukin 3, IL3, IL 3, MCGF, Multi-CSF, HCGF, P-cell stimulation factor
Biological Activity	Mouse IL-4 is fully biologically active when compared to standard. The activity is determined by the ability to induce HT-2 cells proliferation and it is typically less than 20 ng/ml. This corresponds to an expected specific activity of 5.0 x 10^4 units/mg.
Endotoxin Level	≤1.00 EU/µg as measured by kinetic LAL
Formulation	Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 0.1% Trifluoroacetic Acid (TFA)
AA Sequence	MAPMTQTTPL KTSWVNCSNM IDEIITHLKQ PPLPLLDFNN LNGEDQDILM ENNLRRPNLE AFNRAVKSLQ NASAIESILK NLLPCLPLAT AAPTRHPIHI KDGDWNEFRR KLTFYLKTLE NAQAQQTTLS LAIF

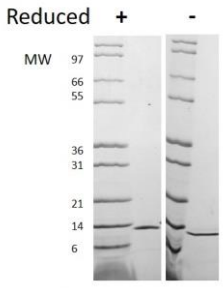
Preparation and Storage

Reconstitution	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile 10 mM acetic acid at 0.1 mg/ml, which can be further diluted into other aqueous solutions.
Stability and Storage	12 months from date of receipt when stored at -20°C to -80°C as supplied. 1 month when stored at 4°C after reconstituting as directed. 3 months when stored at -20°C to -80°C after reconstituting as directed.

Data



Induced proliferation of HT-2 cells assay for Mouse IL-4. Cell proliferation was measured to calculate the ED50, which is as expected less than 20 ng/ml.



Non-reducing (-) and reducing (+) conditions in a 4 - 20% Tris-Glycine gel stained with Coomassie Blue. 1 µg of protein was loaded in each lane. Human Mouse IL-4 has a predicted Mw of 13.7 kDa.