CELL guidance systems

DATA SHEET

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GFH11 Recombinant Human IL-7

Description

Interleukin-7 (IL-7) is a hematopoietic cytokine that is an important regulator of B and T cell development. IL-7 is secreted by bone marrow and thymic stromal cells, dendritic cells, intestinal epithelial cells, hepatocytes, and keratinocytes. IL-7 signals through the interleukin-7 receptor (IL-7R) to promote the differentiation of hematopoietic stem cells into T cells, B cells, and Natural Killer cells. IL-7 is also a regulator of intestinal mucosal lymphocyte proliferation. Human and mouse IL-7 show species cross-reactivity.

Length	153 aa
Molecular Weight	17.5 kDa
Source	E. coli
Accession Number	P13232
Purity	≥95% determined by reducing and non-reducing SDS-PAGE

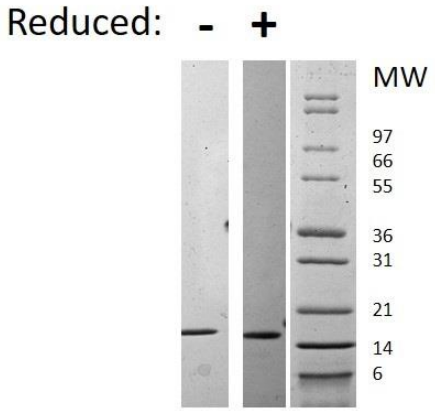
Specifications

Alternative Names	Interleukin-7, interleukin 7, IL7, IL 7, lymphopoietin 1, LP-1, pre-B cell factor
Biological Activity	Human IL-7 is fully biologically active when compared to standard. The activity is determined by the ability to induce mouse 2E8 cells proliferation and it is typically less than 1 ng/ml. This corresponds to an expected specific activity of 1 x 10^6 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 10 mM acetic acid
AA Sequence	MDCDIEGKDG KQYESVLMVS IDQLLDSMKE IGSNCLNNEF NFFKRHICDA NKEGMFLFRA ARKLRQFLKM NSTGDFDLHL LKVSEGTTIL LNCTGQVKGR KPAALGEAQP TKSLEENKSL KEQKKLNDLC FLKRLLQEIK TCWNKILMGT KEH

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 water 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



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 IL-7 has a predicted Mw of 17.5 kDa.