

IL-7 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	interleukin-7;IL-7;IL-7 interleukin-7;PBGF;Lymphopoietin -1
Protein Construction:	Glu26-Ile154
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	P10168
Molecular Weight:	22-28 KDa (reducing condition)
AA Sequence:	Glu26-Ile154

QC Testing

Biological Activity:	1. Loaded Mouse IL-7RA-Fc on Protein A Biosensor, can bind Mouse IL-7-His with an affinity constant of 18.9 nM as determined in BLI assay. (Regularly tested) 2. Measured in a cell proliferation assay using PHA-activated human peripheral blood lymphocytes (PBL). The ED50 for this effect is 60-1000 pg/ml. (QC verified)
Purity:	Greater than 95% as determined by reducing SDS-PAGE. Greater than 95% as determined by SEC-HPLC.
Endotoxin:	< 0.1 ng/μg (1 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Mouse interleukin-7(IL-7) is the member of hemopoietin family which is important to the differentiation, proliferation, and survival of lymphocyte. Mouse IL-7 shares approximately 88% aa sequence identity with rat IL-7 and 58-60% with human, equine, bovine, ovine, porcine, feline and canine IL-7. It is widely expressed in primary

and secondary lymphoid tissues cell and stromal epithelial cells of the thymus, bone marrow, and intestines. IL-7 activation of IL-7 R alpha is critical for both T cell and B cell lineage development. It is important for proliferation during certain stages of B-cell maturation. IL-7 contributes to the maintenance of all naïve and memory T cells, mainly by promoting expression of the anti-apoptotic protein Bcl-2. It is required for optimal T cell-dendritic cell interaction.

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