

**CHASELECTION****Recombinant Mouse IL-7, Tag Free**

货号(Catalog Number): CY164FXXXX(L)

别名(synonym): IL7; IL-7; IL-7interleukin-7; interleukin 7; Lymphopoietin-1; PBGF

来源(Source): Human embryonic kidney cell, HEK293-derived mouse IL-7 protein

蛋白结构 (Structure): 该蛋白不含标签

基因 ID: P10168

**氨基酸序列**

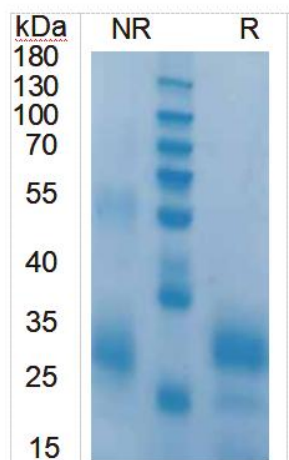
Glu26-Ile154

**分子量大小(MW)**

14.9 kDa

**纯度 (Purity)**

&gt; 95%, determined by SDS-PAGE

**SDS-PAGE**

4 ug/lane protein was resolved with SDS-PAGE under non-reducing (NR) and reducing (R) conditions and visualized by Coomassie Blue staining.

**制剂(Formulation)**

Solution protein.

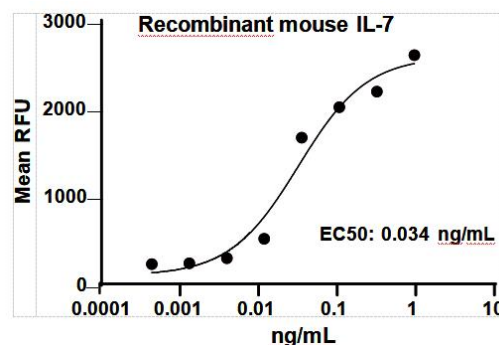
Dissolved in sterile PBS buffer.

This solution can be diluted into other aqueous buffers.

Centrifuge the vial prior to opening.

**内毒素含量 (Endotoxin)**

&lt;0.010 EU per 1 ug of the protein by the LAL method

**生物活性 (Bioactivity)**

Measured in a cell proliferation assay using PHA-activated human peripheral blood lymphocytes (PBL).

**储存与运输(Storage)**

Avoid repeated freeze-thaw cycles.

It is recommended that the protein be aliquoted for optimal storage.

36 months from date of receipt, -20 to -70 °C as supplied.

**产品背景介绍 (Production)**

Interleukin-7 (IL-7) is a 25 kDa cytokine of the hemopoietin family that plays important roles in lymphocyte differentiation, proliferation, and survival. Mouse IL-7 cDNA encodes 154 amino acids (aa) that include a 25 aa signal peptide. 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. Human and mouse IL-7 exhibit cross-species activity. IL-7 is produced by a wide variety of cells in primary and secondary lymphoid tissues, including stromal epithelial cells of the thymus, bone marrow, and intestines. Circulating IL-7 is limiting in healthy animals, but increases during lymphopenia. IL-7 signals through a complex of the IL-7 Receptor alpha subunit (IL-7 R alpha, also known as CD127) with the common gamma chain (gamma c). The gamma c is also a subunit of the receptors for IL-2, -4, -9, -15, and -21. IL-7 R alpha is



expressed on double negative (CD4-CD8-) and CD4+ or CD8+ single positive memory T cells, but undergoes IL-7-mediated down-regulation and shedding during antigen-driven T cell proliferation, and is absent on regulatory T cells. IL-7 contributes to the maintenance of all memory T cells, mainly by promoting expression of the anti-apoptotic protein Bcl-2. It is required for optimal T cell-dendritic cell interaction. IL-7 is expressed early in B cell development prior to the appearance of surface IgM. In mouse, IL-7 activation of IL-7 R alpha is critical for both T cell and B cell lineage development, while in humans, it is required for T cell but not for B cell development.

