Recombinant Mouse IL-7

Catalog # FL065

Product Specifications

Appearance	Sterile filtered White lyophilized (freeze-dried) powder.
Purity	> 97% by SDS-PAGE or HPLC.
Endotoxin	< 0.01 EU/μg of rMuIL-7 protein as determined by LAL method.
Expression System	Expressed in E. coli.
Species	Mouse
Tag	Tag free.
Activity	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using mouse 2E8 cell s is less than 0.2 ng/ml, corresponding to a specific activity of ≥ 5.0×10^6 IU/mg.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, with 3% (v/v) Trehalose, pH 7.4.
Reconstitution	Before use this product, please read the direction below carefully. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.
Accession #	Q544C8 Glu26-Ile154
Amino acid sequence	ECHIKDKEGKAYESVLMISIDELDKMTGTDSNCPNNEPNFFRKHVCDDTKEAAFLNRAARKLKQFLKMNISEEFNVHLLTVS QGTQTLVNCTSKEEKNVKEQKKNDACFLKRLLREIKTCWNKILKGSI
Molecular weight	Approximately 14.9 kDa, a single non-glycosylated polypeptide chain containing 129 amino acids.
Synonyms	LP-1, pre-B cell factor
Stability & Storage	Shipped on wet ice. For long term storage, the product should be stored ≤ -20°C. Please avoid repeated freeze-thaw cycles afte r reconstitution. 36 months from date of receipt, -20 to -70°C as supplied. 1 month, 2 to 8°C under sterile conditions after reco nstitution. 3 months, -20 to -70°C under sterile conditions after reconstitution.
Precautions	Recombinant Mouse IL-7 is for research use only and not for use in diagnostic or therapeutic procedures.

Background

Interleukin-7 (IL-7) is encoded by the IL7 gene in mouse and secreted by stromal cells in the red marrow and thymus. The prot ein signals through the IL-7 receptor, which is a heterodimer consisting of IL-7 receptor alpha and IL-2 receptor gamma chain. IL-7 stimulates the differentiation of hematopoietic stem cells into lymphoid progenitor cells and it can stimulate proliferation of B cells, T cells and NK cells. Mouse IL-7 has approximately 65% and 88% amino acid sequence identity with human and rat IL -7 respectively and both proteins exhibit cross-species activity. Recombinant Mouse IL-7 is a 14.9kDa globular protein containi ng 129 amino acid.

Validation Images