

Source

Mouse IL-7 Antibody, Mouse IgG1 (4C9F12) is a chimeric monoclonal antibody recombinantly expressed from human 293 cells (HEK293), which combines the variable region of a mouse monoclonal antibody with mouse IgG1 constant domain. The mouse monoclonal antibody is produced from a hybridoma resulting from fusion of SP2/0 myeloma and B-lymphocytes obtained from a mouse immunized with IL-7.

Isotype

Mouse IgG1 | Kappa

Specificity

This product is a specific antibody specifically reacts with IL-7.

Application

ELISA

Purity

>90% as determined by SDS-PAGE.

Endotoxin

Less than 1.0 EU per mg by the LAL method.

Formulation

Lyophilized from 0.22 μ m filtered solution in PBS,pH 7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

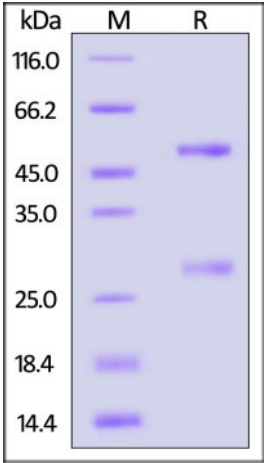
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

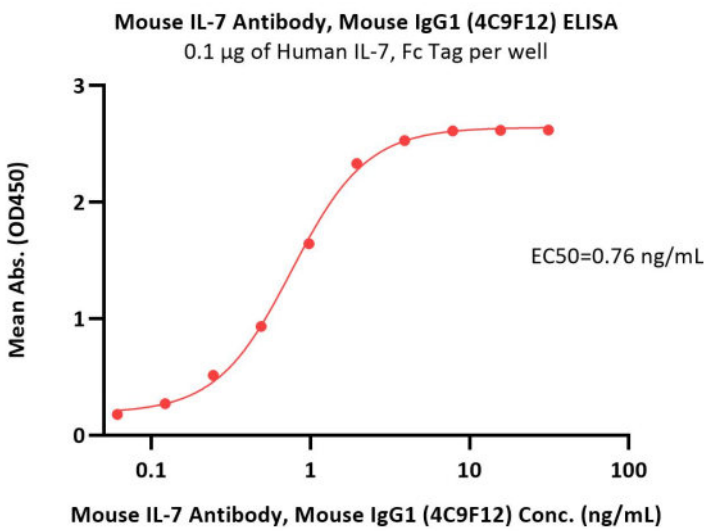
- -20°C to -70°C for 12 months in lyophilized state;
- -70 °C for 3 months after reconstitution;

SDS-PAGE



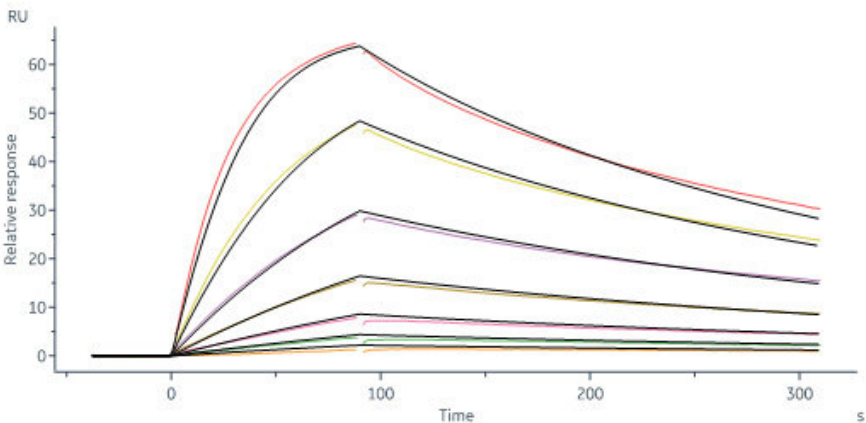
Mouse IL-7 Antibody, Mouse IgG1 (4C9F12) on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity-Elisa



Immobilized Human IL-7, Fc Tag (Cat. No. IL7-H5253) at 1 µg/mL (100 µL/well) can bind Mouse IL-7 Antibody, Mouse IgG1 (4C9F12) (Cat. No. IL7-Y84) with a linear range of 0.1-2 ng/mL (QC tested).

Bioactivity-SPR



Mouse IL-7 Antibody, Mouse IgG1 (4C9F12) (Cat. No. IL7-Y84) immobilized on CM5 Chip can bind Human IL-7, premium grade (Cat. No. IL7-H4219) with an affinity constant of 2.83 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

Interleukin 7 is also known as IL7, IL-7, and is a hematopoietic growth factor secreted by stromal cells in the red marrow and thymus. It is also produced by keratinocytes, dendritic cells, hepatocytes, neurons, and epithelial cells, but is not produced by lymphocytes. IL-7 stimulates the differentiation of multipotent (pluripotent) hematopoietic stem cells into lymphoid progenitor cells, It also stimulates proliferation of all cells in the lymphoid lineage (B cells, T cells and NK cells). It is important for proliferation during certain stages of B-cell maturation, T and NK cell survival, development and homeostasis. IL-7 is a cytokine important for B and T cell development. This cytokine and the hepatocyte growth factor (HGF) form a heterodimer that functions as a pre-pro-B cell growth-stimulating factor. IL-7 binds to the IL-7 receptor, a heterodimer consisting of Interleukin-7 receptor alpha and common gamma chain receptor. Il-7 promotes hematological malignancies (acute lymphoblastic leukemia, T cell lymphoma). Elevated levels of IL-7 have also been detected in the plasma of HIV-infected patients. IL-7 as an immunotherapy agent has been examined in many pre-clinical animal studies and more recently in human clinical trials for various malignancies and during HIV infection. IL-7 could also be beneficial in improving immune recovery after allogenic stem cell transplant.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.