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Product Information

Anti-Interleukin-7 Receptor α/CD127
produced in goat, affinity isolated antibody

Catalog Number **I8409**

Product Description

Anti-Interleukin-7 Receptor α/CD127 is produced in goat using NSO-derived recombinant human interleukin-7 soluble receptor α (rhIL-7 sRα; GeneID 3575). The antibody is purified using IL-7 Rα affinity chromatography.

Anti-Interleukin-7 Receptor α/CD127 recognizes human interleukin-7. Applications include immunoblotting and flow cytometry.

Interleukin-7 (IL-7) is a lymphoid cell growth factor that affects pre-B, pro-B, and early T cells.[1] It was previously known as pre-B cell growth factor and lymphopoietin-1.[2,3] IL-7 is a glycoprotein which promotes the proliferation of precursor B cells, thymocytes, T cell progenitors, and mature $CD4^+$ and $CD8^+$ T cells. The biological effects of IL-7 are mediated by the binding of IL-7 to the specific cell surface receptor. The functional high-affinity IL-7 receptor consists of an α chain and a γ chain.[4] Both IL-7 Rα and IL-7 Rγ are members of the hematopoietin receptor superfamily.

The ligand-binding subunit of the IL-7 R complex has been cloned from human and mouse.[5] IL-7 Rα cDNA encodes a precursor protein containing a signal peptide, an extracellular ligand binding domain, a transmembrane region, and a cytoplasmic region. Human and mouse IL-7 Rα show 64% amino acid sequence identity. IL-7 Rα transcripts have been observed in spleen, thymus, fetal liver, developing T cells, B cells, mature T cells, and bone marrow-derived macrophages.

Reagent

Lyophilized from 0.2 μm-filtered solution in phosphate buffered saline containing carbohydrates.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

To one vial of lyophilized powder, add 1 mL of 0.2 μm filtered PBS to produce a 0.1 mg/mL stock solution. If aseptic technique is used, no further filtration should be needed for use in cell culture environments.

Storage/Stability

Prior to reconstitution, store at –20 °C. The reconstituted product may be stored at 2-8 °C for up to one month. For extended storage, freeze in working aliquots at –20 °C. Repeated freezing and thawing, or storage in frost-free freezers, is not recommended.

Product Profile

Immunoblotting: a working concentration of 0.1-0.2 μg/mL is recommended. The detection limit for recombinant human IL-7 Rα is ~25 ng/lane under non-reducing and reducing conditions.

Flow Cytometry: a working concentration of 5–10 μg/mL can be used with 10 μL/10^5 cells to detect human IL-7 Rα.

Note: In order to obtain the best results using various techniques and preparations, it is recommended to determine the optimal working dilutions by titration.

Endotoxin: <0.15 EU/μg antibody as determined by the LAL method.

References

1. Henney, C. S., *Immunology Today*, **10**, 170 (1989).
2. Namen, A. E., et al., *Nature,* **333**, 571 (1988).
3. Namen, A. E., et al., *J. Exp. Med*., **167**, 988 (1988).
4. Hofmeister, R., et al., *Cytokine Growth Factor Rev*., **10**, 41-60 (1999).
5. Goodwin, R.G., et al., *Cell*, **60**, 941-951 (1990).

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