

Product Information

Anti-Interleukin-2

produced in goat, affinity isolated antibody

Catalog Number **I7784**

Product Description

Anti-Interleukin-2 (IL-2) is produced in goat using as immunogen recombinant mouse Interleukin-2 (GenelD 16183) expressed and purified from *Escherichia coli*. The antibody is purified using mouse Interleukin-2 affinity chromatography.

Anti-Interleukin-2 recognizes murine Interleukin-2. Applications include immunoblotting and neutralization. This antibody has been selected for its ability to neutralize the biological activity of recombinant murine Interleukin-2. It will not neutralize the biological activity of rhIL-2, but will neutralize rIL-2 at a 100x higher IgG concentration.

Interleukin-2 is a T cell-derived cytokine also called T cell growth factor (TCGF). It stimulates the growth and differentiation of T cells, B cells, NK cells, LAK cells, monocytes, macrophages and oligodendrocytes.¹⁻³ It functions through the heterotrimeric IL-2 receptor comprising α , β , and γ chains. There is 60% homology between human and mouse IL-2.

Reagent

Supplied lyophilized from a 0.2 μ m filtered solution of phosphate buffered saline with 5% trehalose.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material 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 μ m filtered PBS to produce a 0.1 mg/mL stock solution. If aseptic technique is used, no further filtration should be necessary for use in cell culture environments.

Storage/Stability

Prior to reconstitution, store at -20°C . Reconstituted product may be stored at $2-8^{\circ}\text{C}$ 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.

Neutralization

To measure the ability of the antibody to neutralize the bioactivity of recombinant murine Interleukin-2 on CTLL-2 cells, recombinant murine Interleukin-2 was incubated with various concentrations of the antibody for 1 hour at 37°C in a 96 well plate. Following this preincubation period, CTLL-2 cells were added. The assay mixture in a total volume of 100 μL , containing antibody at 0.01-50 $\mu\text{g/mL}$, recombinant murine Interleukin-2 at 2.0 ng/mL and the cells at 1×10^5 cells/mL, was incubated at 37°C for 24 hours in a humidified CO_2 incubator. ^3H -thymidine was added during the final 4 hours of incubation. The cells were harvested onto glass fiber filters and the ^3H -thymidine incorporated into DNA was determined.

The Neutralization Dose₅₀ (ND₅₀) for this antibody is defined as that concentration of antibody required to yield one-half maximal inhibition of the cytokine activity on a responsive cell line, when that cytokine is present at a concentration just high enough to elicit a maximum response.

Product Profile

Immunoblotting: a working antibody concentration of 0.1-0.2 $\mu\text{g/mL}$ is recommended to detect murine Interleukin-2. The detection limit for recombinant murine Interleukin-2 is ~ 5 ng/lane under non-reducing and reducing conditions.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

Endotoxin: <0.01 EU/μg antibody as determined by the LAL method.

References

1. Smith, K., *Ann. Rev. Immunol.*, **2**, 319 (1984).
2. Smith, K., *Science*, **240**, 1169 (1988).
3. Kuziel, W., et al., *The Cytokine Handbook*, Thomson. A. (ed.), Academic Press, London, 83 (1991).

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