

## Product Information

### Anti-Interleukin-2

produced in goat, affinity isolated antibody

Catalog Number **I7401**

Synonym: Anti-IL-2

### Product Description

Anti-Interleukin-2 is developed in goat using recombinant, human IL-2 (rhIL-2) expressed in *E. coli* as immunogen. The antibody is purified using human IL-2 affinity chromatography.

Anti-Interleukin-2 will neutralize the biological activity of both rhIL-2 and natural human IL-2. The antibody may also be used in immunoblotting and immunocytochemistry.

Interleukin-2 (IL-2), also known as T Cell Growth Factor, is an immunomodulatory factor produced by certain subsets of T lymphocytes.<sup>1</sup> This lymphokine is useful in promoting long term growth of activated T cells, B lymphocytes, lymphokine-activated killer (LAK) cells, monocytes, macrophages, and oligodendrocytes. Interleukin-2 affects the activation and proliferation of NK cells, induces  $\gamma$ -interferon and B cell growth factor secretion,<sup>2-5</sup> and modulates the expression of the IL-2 receptor.<sup>6</sup> IL-2 also functions as a growth inhibitor in certain neoplastic cells.<sup>7</sup> Multiple biological functions of IL-2 have been described, including B cell growth and differentiation.<sup>8</sup> Interleukin-2 has been isolated from a number of cell types.<sup>9,10</sup>

### Reagents

Lyophilized from 0.2  $\mu$ m-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  $\mu$ m filtered PBS to produce a 0.1 mg/ml stock solution of Anti-Human IL-2. If aseptic technique is used, no further filtration should be needed for use in cell culture environments.

### Storage/Stability

Store the lyophilized product at  $-20^{\circ}\text{C}$ . Reconstituted product may be stored at  $2-8^{\circ}\text{C}$  for up to one month. For prolonged storage, freeze in working aliquots at  $-20^{\circ}\text{C}$ . Avoid repeated freezing and thawing.

### Product Profile

Anti-Human IL-2 is tested for its ability to neutralize the bioactivity of rhIL-2 in a cell proliferation assay using an IL-2-dependent murine cell line, CTLL-2.<sup>11</sup>

In this bioassay, rhIL-2 is preincubated with various dilutions of the antibody for 1 hour at  $37^{\circ}\text{C}$  in a 96 well plate. CTLL-2 cells are added to each well. The total volume of 100  $\mu$ l, containing antibody, rhIL-2 at 2 ng/ml, and cells at  $1 \times 10^5$  cells/ml, was incubated for 24 hours at  $37^{\circ}\text{C}$  in a 5%  $\text{CO}_2$  humidified incubator and then pulsed for the last 4 hours with  $^3\text{H}$ -thymidine. Cells were harvested onto glass filters and the  $^3\text{H}$ -thymidine incorporation into DNA was measured.

The  $\text{ND}_{50}$  of the antibody is defined as the concentration of antibody resulting in a one-half maximal inhibition of bioactivity of recombinant, human IL-2, when IL-2 is present at a concentration just high enough to elicit a maximum response.

Indirect immunoblotting: 0.1  $\mu$ g/ml antibody detects rhIL-2 at 5 ng/lane under non-reducing and reducing conditions.

Immunocytochemistry: 5-15  $\mu$ g/ml may be used to detect IL-2 in cultured cells or tissue sections.

### References

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