# Technical Data Sheet

## Recombinant Human Interleukin-2 (rHu IL-2)

*Human Interleukin-2*

Interleukin 2 is a protein that has a variety of immunologic functions, the most notable being the ability of IL-2 to promote the proliferation and maturation of activated T cells. A comparison of the amino acid sequences of human and murine IL-2 shows an approximately 60% sequence similarity, and human sequence IL-2 has been found to be active on murine cell lines. Some of the biological activities attributed to IL-2 include:

- induction of secretion of interferon-$\gamma$ and tumor necrosis factors -$\alpha$ and -$\beta$ from peripheral blood mononuclear cells
- stimulation of the rate of synthesis of c-myc RNA and transferrin receptor
- activation of neutrophils
- stimulation of proliferation and maturation of activated helper T cells
- stimulation of proliferation of activated and natural killer cells and tumor-infiltrating lymphocytes, as well as enhancement of the ability of these cytotoxic lymphocytes to kill target cells
- induction of the expression of IL-2 receptors on T cells
- stimulation of proliferation of antibody-producing B cells

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| Catalog Number: | RC212-13 |
| Source: | *Escherichia coli.* |
| Molecular Weight: | Approximately 15 kDa, a single non-glycosylated polypeptide chain containing 134 amino acids. |
| Quantity: | 10ug/50ug/1000µg |
| Purity: | >97% by SDS-PAGE and HPLC analyses. |
| Biological Activity: | Fully biologically active when compared to standard. The $ED_{50}$ as determined by the dose-dependant stimulation of murine CTLL-2 cells is less than 0.1 ng/ml, corresponding to a specific activity of > 1 x $10^7$ units/mg. |
| Physical Appearance: | Sterile Filtered White lyophilized (freeze-dried) powder. |
| Formulation: | Lyophilized from a 0.2µm filtered concentrated (1mg/ml) solution in PBS, pH 7.5. |
| AA Sequence: | MAPTSSSTKK TQLQLEHLLL DLQMILNGIN NYKNPKLTRM LTFKFYMPKK ATELKHLQCL EEELKPLEEV LNLAQSKNFH LRPRDLISNI NVIVLELKGS ETTFMCEYAD ETATIVEFLN RWITFCQSII STLT |
| Endotoxin: | Less than 1EU/µg of rHuIL-2 as determined by LAL method. |

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| Reconstitution: | We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in 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. |
| Storage: | This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles. |
| Usage: | This material is offered by Bio Basic Inc for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE. |