

## Recombinant Porcine Interleukin-2

#R00348

Size: 10 µg/100 µg/500 µg

### Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



**Warning:** This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

### Background

IL-2 is a powerful immunoregulatory lymphokine produced by T-cells in response to antigenic or mitogenic stimulation. It is expressed by CD4+ and CD8+ T cells,  $\gamma\delta$  T cells, B cells, dendritic cells, and eosinophils. IL-2/IL-2R signaling is required for T-cell proliferation and other fundamental functions which are essential for the immune response. The receptor for IL-2 consists of three subunits (55 kDa IL2R $\alpha$ , 75 kDa IL2R $\beta$ , 64 kDa common gamma chain  $\gamma$ c/IL2R $\gamma$ ) that are present on the cell surface in varying preformed complexes. Recombinant porcine IL-2 is a 15.3 kDa protein containing 134 amino acid residues and it shares about 72 % amino acid sequence identity with mouse, human and rat IL-2. It also shares 60 % and 67 % acid sequence identity with rhesus macaque and equus caballus IL-2, respectively.

### AA Sequence

APTSSSTKNTKKQLEPLLLDLQLLLKEVKNYENADLS  
RMLTFKFYMPKQATELKHLQCLVEELKALEGVLNLGQ  
SKNSDSANIKESMNNINVTVLELKGSETSFKCEYDDE  
TVTAVEFLNKWITFCQSIYSTLT

### 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  $\leq$  -20 °C. Further dilutions should be made in appropriate buffered solutions.

### Product Specification

|                            |                                                                                                                                                                                                                                         |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Synonyms</b>            | T-cell Growth Factor, TCGF                                                                                                                                                                                                              |
| <b>Accession</b>           | P26891                                                                                                                                                                                                                                  |
| <b>GeneID</b>              | 396868                                                                                                                                                                                                                                  |
| <b>Species</b>             | Porcine                                                                                                                                                                                                                                 |
| <b>Source</b>              | Escherichia coli.                                                                                                                                                                                                                       |
| <b>Molecular Weight</b>    | Approximately 15.2 kDa, a single non-glycosylated polypeptide chain containing 134 amino acids.                                                                                                                                         |
| <b>Purity</b>              | > 96 % by SDS-PAGE and HPLC analyses.                                                                                                                                                                                                   |
| <b>Biological Activity</b> | Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by a cell proliferation assay using murine CTLL-2 cells is less than 0.5 ng/ml, corresponding to a specific activity of > 2.0 × 10 <sup>6</sup> |

|             |                                                                                    |
|-------------|------------------------------------------------------------------------------------|
|             | IU/mg.                                                                             |
| Physical    | Sterile Filtered White lyophilized                                                 |
| Appearance  | (freeze-dried) powder.                                                             |
| Formulation | Lyophilized from a 0.2 μm<br>filtered concentrated solution in<br>1 × PBS, pH 7.4. |
| Endotoxin   | Less than 1 EU/μg of rPolL-2 as<br>determined by LAL method.                       |