

## Recombinant Porcine Interleukin-2

### Information

<b>Gene ID</b>	396868
<b>Accession #</b>	P26891
<b>Alternate Names</b>	T-cell Growth Factor, TCGF
<b>Source</b>	Escherichia coli.
<b>M.Wt</b>	Approximately 15.2 kDa, a single non-glycosylated polypeptide chain containing 134 amino acids.
<b>AA Sequence</b>	APTSSSTKNT KKQLEPLLLD LQLLLKEVKY YENADLSRML TFKFYMPKQA TELKHLQCLV EELKALEGVL NLGQSKNSDS ANIKESMNNI NVTVLELKGS ETSFKCEYDD ETVTAVEFLN KWITFCQSIY STL
<b>Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Stability &amp; Storage</b>	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
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in 1 × PBS, pH 7.4.
<b>Reconstitution</b>	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.
<b>Biological Activity</b>	Fully biologically active when compared to standard. The ED 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 IU/mg.
<b>Shipping Condition</b>	Gel pack.
<b>Handling</b>	Centrifuge the vial prior to opening.
<b>Usage</b>	For Research Use Only! Not to be used in humans.

### Components and Storage

Components	10µg	100µg	500µg
Recombinant Porcine Interleukin-2	10µg	100µg	500µg

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- 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

## Quality Control

Purity	> 96 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rPoIL-2 as determined by LAL method.

## Description

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.

## Reference

1. Ma, A., R. Koka, and P. Burkett. 2006. Annu Rev Immunol, 24: 657-79
2. Taniguchi, T., H. Matsui, T. Fujita, et al. 1983. Nature, 302: 305-10
3. Liparoto, S.F., D.G. Myszka, Z. Wu, et al. 2002. Biochemistry, 41: 2543-51
4. Bodnar, A., E. Nizsaloczki, G. Mocsar, et al. 2008. Immunol Lett, 116: 117-25
5. Mosmann, T.R., T. Yokota, R. Kastelein, et al. 1987. J Immunol, 138: 1813-6.

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