

DESCRIPTION	
<b>Species Reactivity</b>	Porcine
<b>Specificity</b>	Detects porcine IL-2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 40% cross-reactivity with recombinant human IL-2 is observed and less than 1% cross-reactivity with recombinant mouse IL-2 and recombinant rat IL-2 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant porcine IL-2 Ala21-Thr154 Accession # P26891
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

**APPLICATIONS**

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.1 µg/mL	Recombinant Porcine IL-2 (Catalog # 652-P2)
<b>Immunocytochemistry</b>	5-15 µg/mL	See Below
<b>Neutralization</b>	Measured by its ability to neutralize IL-2-induced proliferation in the CTLL-2 mouse cytotoxic T cell line. Gearing, A. J. H. and C. B. Bird (1987) in <i>Lymphokines and Interferons, A Practical Approach</i> . Clemens, M. J. <i>et al.</i> (eds): IRL Press. 276. The Neutralization Dose (ND <sub>50</sub> ) is typically 0.25-0.8 µg/mL in the presence of 2 ng/mL Recombinant Porcine IL-2.	

**DATA**

**Neutralization**

**Cell Proliferation Induced by IL-2 and Neutralization by Porcine IL-2 Antibody.** Recombinant Porcine IL-2 (Catalog # 652-P2) stimulates proliferation in the CTLL-2 mouse cytotoxic T cell line in a dose-dependent manner (orange line). Proliferation elicited by Recombinant Porcine IL-2 (2 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Porcine IL-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF652). The ND<sub>50</sub> is typically 0.25-0.8 µg/mL.

**Immunocytochemistry**

**IL-2 in Porcine PBMCs.** IL-2 was detected in immersion fixed porcine peripheral blood mononuclear cells treated with calcium ionomycin and PMA using Goat Anti-Porcine IL-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF652) at 25 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

#### BACKGROUND

Interleukin 2 was initially identified as a T cell growth factor that is produced by T cells following activation by mitogens or antigens. Since then, it has been shown that in addition to its T cell growth factor activity, IL-2 can also stimulate the growth and differentiation of B cells, natural killer (NK) cells, lymphocyte activated killer (LAK) cells, monocytes/macrophages and oligodendrocytes. Mature porcine and human IL-2 share approximately 72% amino acid sequence identity. The biological activity of IL-2 is mediated by the binding of IL-2 to cell surface receptor complexes. The functional high-affinity receptor of IL-2 is composed of three distinct polypeptide chains, the IL-2 receptor  $\alpha$ ,  $\beta$  and  $\gamma$  subunits. The intermediate-affinity IL-2 receptor complex, which lacks the  $\alpha$  subunit, but contains both the  $\beta$  and  $\gamma$  subunits, is also capable of transducing the IL-2 signal. In T cells, the  $\beta$  and  $\gamma$  subunits are shared with the IL-15 receptor complex. The  $\gamma$  chain of the IL-2 receptor complex is also a subunit of IL-4, IL-7, and IL-9 receptor complexes.

#### References:

1. Taniguchi, T. and Y. Minami (1993) *Cell* **73**:5.
2. Waldmann, T. *et al.* (1998) *Int. Rev. Immunol.* **16**:205.
3. Nelson, B.H. and D.M. Willeford (1998) *Adv. Immunol.* **70**:1.