

DESCRIPTION

Species Reactivity	Porcine
Specificity	Detects porcine IL-2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with human, mouse, rat, bovine, canine, equine, feline, or cotton rat IL-2 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 100312
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant porcine IL-2 Ala21-Thr154 Accession # P26891
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or 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
Western Blot	1 µg/mL	Recombinant Porcine IL-2 (Catalog # 652-P2)
Intracellular Staining by Flow Cytometry	2.5 µg/10 ⁶ cells	Porcine peripheral blood mononuclear cells treated with LPS, fixed with paraformaldehyde, and permeabilized with saponin
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	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
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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 α , β and γ subunits. The intermediate-affinity IL-2 receptor complex, which lacks the α subunit, but contains both the β and γ subunits, is also capable of transducing the IL-2 signal. In T cells, the β and γ subunits are shared with the IL-15 receptor complex. The γ 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.