

DESCRIPTION

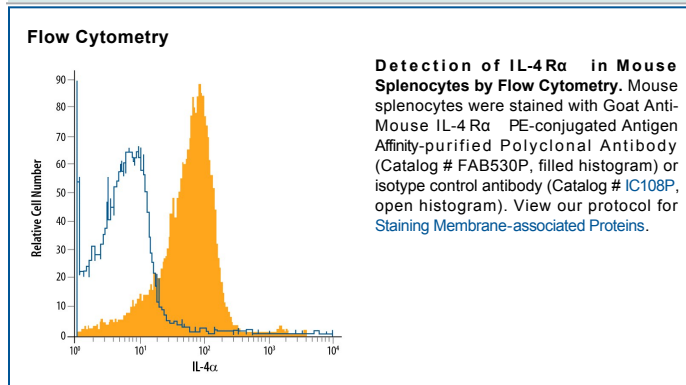
Species Reactivity	Mouse
Specificity	Detects mouse IL-4 R α in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 1% cross-reactivity with recombinant human (rh) IL-4 R, rhIL-9 R, rhIL-13 R α 1, and recombinant mouse IL-13 R α 2 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse IL-4 R α
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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
Flow Cytometry	10 μ L/10 ⁶ cells	See Below

DATA



PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage **Protect from light. Do not freeze.**

- 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Interleukin 4 is a pleiotropic cytokine produced primarily by activated T cells, mast cells and basophils. The diverse biological effects of IL-4 on a variety of cell types are mediated by the binding of IL-4 to specific cell surface receptors. As is the case with many other cytokines, the functional high-affinity receptor for IL-4 is a complex consisting of a ligand binding subunit (α chain) and a second subunit (β chain) that can modulate the ligand binding affinity of the receptor complex. It has been shown that in certain cell types, the gamma chain of the IL-2 receptor is a functional component (β chain) of the IL-4 receptor complex.

cDNA clones for the ligand binding chain (IL-4 R) of both the mouse and human high affinity IL-4 receptors have been isolated. The human or mouse IL-4R is an approximately 140 kDa transmembrane protein containing an extracellular domain, a transmembrane domain, and a large cytoplasmic domain that is essential for IL-4 signal transduction. In addition to the cDNA clone encoding the full-length transmembrane protein, a second cDNA clone that arises from alternate splicing and that encodes a soluble secreted form of IL-4 R has been isolated from mouse cells, but not yet from human sources. A naturally-occurring soluble form of the IL-4 R has also been identified in mouse biological fluids and murine cell culture supernatants.

Native or recombinant murine soluble IL-4 R, as well as recombinant human soluble IL-4 R, can bind IL-4 with the same affinity as the membrane bound IL-4 R. Soluble IL-4 R is a competitive inhibitor of IL-4 and has been shown to neutralize effectively many IL-4-mediated responses both *in vivo* and *in vitro*.