

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-4 Rα in direct ELISAs. In direct ELISAs, approximately 10% cross-reactivity with recombinant mouse IL-4 R is observed, and less than 1% cross-reactivity with recombinant human (rh) IL-5 Rα, rhIL-5 Rβ, rhIL-9 R, rhIL-13 Rα1, and rhIL-13 Rα
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human IL-4 Rα Gly24-His232 Accession # P24394
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *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.

Immunocytochemistry Optimal dilution of this antibody should be experimentally determined.

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 (IL-4) is a pleiotropic cytokine produced by activated T cells, mast cells, and basophils. The biological functions of IL-4 are mediated by the binding of IL-4 to high-affinity cell surface receptor complexes. Two types of IL-4 receptor complexes have been described. The type I IL-4 receptor complex is composed of a high-affinity IL-4-binding subunit (referred to as IL-4 Rα) and the common γ chain that does not bind IL-4 by itself. The type II IL-4 receptor complex is composed of IL-4 Rα and IL-13 Rα1. Besides IL-4 signals, the type II IL-4 receptor complex can also transduce IL-13 signals. In the type II complex, the IL-4 Rα subunit binds only IL-4 and not IL-13. Similarly, the IL-13 Rα1 subunit binds only IL-13 and not IL-4. The cDNA clones for both the human and mouse IL-4 Rα have been isolated and shown to encode an approximately 140 kDa type I transmembrane protein with a large cytoplasmic domain that is essential for signal transduction. In mouse cells, an alternatively spliced variant encoding a soluble secreted IL-4 Rα isoform has also been identified. Naturally occurring soluble IL-4 Rα that binds IL-4 with high-affinity has been found in mouse and human biological fluids.

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