



Goat anti Cotton Rat IL4 polyclonal antibody [Biotin] (CABT-L134)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	Detects cotton rat IL-4 in ELISAs and Western blots. In sandwich immunoassays, less than 0.05% cross-reactivity with recombinant human (rh) IL-4, recombinant rat (rr) IL-4, recombinant porcine (rp) IL-4, rhIL-4 sR, recombinant mouse (rm) IL-4 R, recombinant feline IL-4, and recombinant canine IL-4 is observed. In Western blots, approximately 10% cross-reactivity with rIL-4 is observed, 5% cross-reactivity with mL-4 is observed, and less than 1% cross-reactivity with rhIL-4 and rpIL-4 is observed.
Target	IL-4
Immunogen	E. coli-derived recombinant cotton rat IL-4, Cys21-Phe147, Accession #AAL18820
Isotype	IgG
Source/Host	Goat
Species Reactivity	Cotton Rat
Purification	Antigen Affinity-purified
Conjugate	Biotin
Applications	ELISA(Det), WB
Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Format	Lyophilized
Size	50 µg
Buffer	PBS with BSA

Preservative	None
Storage	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. 6 months, -20 to -70 °C under sterile conditions after reconstitution.
Ship	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

BACKGROUND

Introduction	Interleukin-4 (IL-4), also known as B cell-stimulatory factor-1, is a monomeric, approximately 13 kDa-18 kDa Th2 cytokine that shows pleiotropic effects during immune responses. It is a glycosylated polypeptide that contains three intrachain disulfide bridges and adopts a bundled four alpha-helix structure. Cotton rat IL-4 is synthesized with a 24 amino acid (aa) signal sequence. Mature cotton rat IL-4 shares 41%, 44%, 57%, and 68% aa sequence identity with bovine, human, mouse, and rat IL-4, respectively. IL-4 exerts its effects through two receptor complexes. The type I receptor, which is expressed on hematopoietic cells, is a heterodimer of the ligand binding IL-4 R alpha and the common gamma chain (a shared subunit of the receptors for IL-2,-7,-9,-15, and-21). The type II receptor on nonhematopoietic cells consists of IL-4 R alpha and IL-13 R alpha 1. The type II receptor also transduces IL-13 mediated signals. IL-4 is primarily expressed by Th2-biased CD4+ T cells, mast cells, basophils, and eosinophils. It promotes cell proliferation, survival, and immunoglobulin class switch to IgE in B cells, acquisition of the Th2 phenotype by naïve CD4+ T cells, priming and chemotaxis of mast cells, eosinophils, and basophils, and the proliferation and activation of epithelial cells. IL-4 plays a dominant role in the development of allergic inflammation and asthma.
Keywords	B cell growth factor 1;BCDF;B-cell stimulatory factor 1;BCGF1;BCGF-1;binetrakin;BSF1;BSF-1;IL4;IL-4;IL-4B_cell stimulatory factor 1;interleukin 4;interleukin-4;Lymphocyte stimulatory factor 1;MGC79402;pitakinra

GENE INFORMATION

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