Datasheet for ABIN2688939

anti-IL4 Receptor antibody

19 Publications

Go to Product page

Overview

Quantity:	0.1 mg
Target:	IL4 Receptor (IL4R)
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This IL4 Receptor antibody is un-conjugated
Application:	Flow Cytometry (FACS)

Product Details

Brand:	BD Pharmingen™
Immunogen:	Soluble Human IL-4 Receptor
Clone:	HIL4R
Isotype:	IgG1 kappa
Characteristics:	The hIL4R-M57 antibody specifically binds to the α subunit (IL-4Rα) of the human Interleukin-4 Receptor complex which is also known as CD124. The human IL-4Rα, also known as B cell stimulatory factor 1 receptor (BSF-1 receptor), is a 140 kDa transmembrane glycoprotein that is expressed by B and T lymphocytes and a variety of other hematopoietic and non-hematopoietic cells and cell lines. The cell surface IL-4Rα chain binds IL-4 with high affinity and associates with either the common γ chain (IL-4Rα/γc, aka, type I IL-4R complex) or the IL-13 receptor alpha-1 subunit (IL-4Rα/IL-13Rα1, aka, type II IL-4R complex) to form two distinct types of signal-transducing IL-4R complexes. The type I IL-4 receptor complex specifically binds IL-4

Product Details

	whereas the type II IL-4R complex binds and transduces signals from either IL-4 or IL-13. A truncated form of the IL-4Rα exists in soluble form in biological fluids. In contrast to mice, in humans no distinct mRNA coding for sIL-4R has been described, suggested that human sIL4-R is exclusively produced by proteolytic cleavage of the cell surface receptor. The serum levels of soluble IL-4Rα appear to elevate in pathological situations such as allergy and parasitic infections. Depending on the ratios of IL-4 and sIL-4Rα present in the local milieu, the sIL-4Rα may augment or antagonize the activities of IL-4. The immunogen used to generate the hIL4R-M57 hybridoma was soluble human IL-4R. This antibody is routinely tested by flow cytometric analysis. Other applications were tested during antibody development only or reported in the literature. Expression of surface CD124 (IL-4Rα) by human PBMC. Human PBMC isolated by density gradient centrifugation (Ficoll-Paque™) were blocked with normal polyclonal human IgG and stained with hIL4R-M57 (0.5 µg/10^6 cells, Cat. No. 551894) followed by biotinylated goat anti-mouse IgG1 and streptavidin phycoerythrin (Cat. No. 554061). Staining with the hIL4R-M57 antibody (filled histograms) is compared to staining obtained using the isotype control antibody (open histograms). The overlapping histograms are displayed for gated CD19 positive lymphocytes. Note: Certain human cell lines or cell types (e.g., neutrophils and monocytes) can first be treated with reagents that block receptors for the Fc regions of immunoglobulin to avoid nonspecific immunofluorescent staining mediated by Fc receptors. BD Pharmingen™ Purified Mouse Anti-Human CD124 - Purified - Clone hIL4R-M57 - Isotype Mouse IgG1, κ - Reactivity Hu - 0.1 mg
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	IL4 Receptor (IL4R)
Alternative Name:	CD124 (IL4R Products)
Background:	Synonyms: IL-4 Receptor α Chain
Pathways:	JAK-STAT Signaling, Positive Regulation of Immune Effector Process

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

Handling

Concentration:	0.5 mg/mL
Buffer:	Aqueous buffered solution containing ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Store undiluted at 4°C.

Publications

Product cited in:

Gessner, Röllinghoff: "Biologic functions and signaling of the interleukin-4 receptor complexes." in: **Immunobiology**, Vol. 201, Issue 3-4, pp. 285-307, (2000) (PubMed).

Jung, Schrader, Hellwig, Enssle, Neumann: "Soluble human interleukin-4 receptor is produced by activated T cells under the control of metalloproteinases." in: **International archives of allergy and immunology**, Vol. 119, Issue 1, pp. 23-30, (1999) (PubMed).

Sang, Ouma, John, Whalen, King, Mahmoud, Heinzel: "Increased levels of soluble interleukin-4 receptor in the sera of patients with visceral leishmaniasis." in: **The Journal of infectious diseases**, Vol. 179, Issue 3, pp. 743-6, (1999) (PubMed).

Jung, Bews, Enssle, Wagner, Neumann, Heusser: "Detection of and discrimination between total and free human interleukin-4 and free soluble interleukin-4 receptor by ELISA." in: **Journal of immunological methods**, Vol. 217, Issue 1-2, pp. 41-50, (1998) (PubMed).

Nasert, Millner, Enssle, Wahn, Renz: "Differential modulation of T cell functions by soluble IL-4R (s1L-4R) in two cases of severe atopic dermatitis." in: **Pediatric allergy and immunology : official publication of the European Society of Pediatric Allergy and Immunology**, Vol. 7, Issue 2, pp. 91-4, (1997) (PubMed).

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