



Rat Anti-Mouse IL-4 Monoclonal antibody, clone 11B11 (CABT-L4376)

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

PRODUCT INFORMATION

Product Overview

The 11B11 monoclonal antibody reacts with mouse IL-4 (interleukin-4) a multifunctional 14 kDa cytokine. IL-4 is expressed primarily by activated Th2 cells and NK cells, and at lower levels by mast cells, and basophils. IL-4 signals through the IL-4R α . Upon receptor binding IL-4 stimulates activated B and T lymphocyte proliferation, and the differentiation of B cells into plasma cells. It also induces B cell class switching to IgE, and up-regulates MHC class II production while decreasing the production of Th1 cells, macrophages, IFN γ , and dendritic cell IL-12. Like other Th2 associated cytokines, IL-4 is involved in the airway inflammation observed in the lungs of patients with allergic asthma. The 11B11 monoclonal antibody has been shown to neutralize the bioactivity of natural or recombinant IL-4.

Target	Mouse IL-4
Immunogen	Partially purified native mouse IL-4
Isotype	IgG1, κ
Source/Host	Rat
Species Reactivity	Mouse
Clone	11B11
Purification	Protein G purified. Purity>95%. Determined by SDS-PAGE
Conjugate	Functional Grade
Applications	in vivo IL-4 neutralization, in vitro IL-4 neutralization, in vivo IL-4 receptor stimulation (as a complex with IL-4), FC, WB

Molecular Weight	150 kDa
Format	0.2 µM filtered liquid. Purified from tissue culture supernatant in an animal free facility
Concentration	Lot specific
Size	5 mg
Buffer	PBS, pH 7.0. Contains no stabilizers or preservatives. [low endotoxin azide-free] Endotoxin level: <2EU/mg (<0.002EU/µg). Determined by LAL gel clotting assay Related dilution buffer: CABT-LB04
Preservative	None
Storage	The antibody solution should be stored undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.
Ship	Wet ice

BACKGROUND

Introduction	Th2-type cytokine; may be involved in inflammatory response in eosinophils [RGD, Feb 2006]
Keywords	IL4;interleukin 4;Il4e12;interleukin-4;IL-4;BSF-1;B-cell growth factor 1;B-cell stimulatory factor 1;lymphocyte stimulatory factor 1;B-cell IGG differentiation factor;

GENE INFORMATION

Official Symbol	interleukin 4
Synonyms	IL4; interleukin 4; Il4e12; interleukin-4; IL-4; BSF-1; B-cell growth factor 1; B-cell stimulatory factor 1; lymphocyte stimulatory factor 1; B-cell IGG differentiation factor;
References	Gaya, M., et al. (2018). "Initiation of Antiviral B Cell Immunity Relies on Innate Signals from Spatially Positioned NKT Cells." Cell 172(3): 517-533 e520. PubMed;Heinemann, C., et al. (2014). "IL-27 and IL-12 oppose pro-inflammatory IL-23 in CD4+ T cells by inducing Blimp1." Nat Commun 5: 3770. PubMed;McKinstry, K. K., et al. (2014). "Effector CD4 T-cell transition to memory requires late cognate interactions that induce autocrine IL-2." Nat Commun 5: 5377. PubMed;Mishra, P. K., et al. (2013). "Prevention of type 1 diabetes through infection with an intestinal nematode parasite requires IL-10 in the absence of a Th2-type response." Mucosal Immunol 6(2): 297-308. PubMed;Li, X., et al. (2012). "Divergent requirement for Galphas and cAMP in the differentiation and inflammatory profile of distinct mouse Th subsets." J Clin Invest 122(3): 963-973. PubMed