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IL4 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5241B

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P05112
Other Accession	P79339
Reactivity	Human, Mouse
Predicted	Monkey, Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB22885
Calculated MW	17492
Antigen Region	122-151

Additional Information

Gene ID	3565
Other Names	Interleukin-4, IL-4, B-cell stimulatory factor 1, BSF-1, Binetrakin, Lymphocyte stimulatory factor 1, Pitrakinra, IL4
Target/Specificity	This L4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 122-150 amino acids from the C-terminal region of human L4.
Dilution	WB~~1:500 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	IL4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	IL4
Function	Cytokine secreted primarily by mast cells, T-cells, eosinophils, and basophils

that plays a role in regulating antibody production, hematopoiesis and inflammation, and the development of effector T-cell responses (PubMed:1993171, PubMed:3016727). Induces the expression of class II MHC molecules on resting B-cells. Enhances both secretion and cell surface expression of IgE and IgG1 (PubMed:1993171). Also regulates the expression of the low affinity Fc receptor for IgE (CD23) on both lymphocytes and monocytes (PubMed:2521231). Positively regulates IL31RA expression in macrophages. Stimulates autophagy in dendritic cells by interfering with mTORC1 signaling and through the induction of RUFY4. In addition, plays a critical role in higher functions of the normal brain, such as memory and learning (By similarity). Upon binding to IL4, IL4R receptor dimerizes either with the common IL2R gamma chain/IL2RG to produce the type 1 signaling complex, located mainly on hematopoietic cells, or with the IL13RA1 to produce the type 2 complex, which is also expressed on nonhematopoietic cells (PubMed:10219247, PubMed:11526337, PubMed:18243101). Engagement of both types of receptors initiates JAK3 and to a lower extend JAK1 phosphorylation leading to activation of the signal transducer and activator of transcription 6/STAT6 (PubMed:7721895).

Cellular Location Secreted.

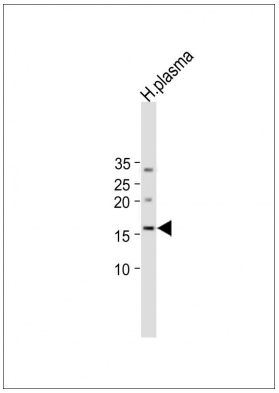
Background

IL4 is a pleiotropic cytokine produced by activated T cells. This cytokine is a ligand for interleukin 4 receptor. The interleukin 4 receptor also binds to IL13, which may contribute to many overlapping functions of this cytokine and IL13. STAT6, a signal transducer and activator of transcription, has been shown to play a central role in mediating the immune regulatory signal of this cytokine. This gene, IL3, IL5, IL13, and CSF2 form a cytokine gene cluster on chromosome 5q, with this gene particularly close to IL13. This gene, IL13 and IL5 are found to be regulated coordinately by several long-range regulatory elements in an over 120 kilobase range on the chromosome.

References

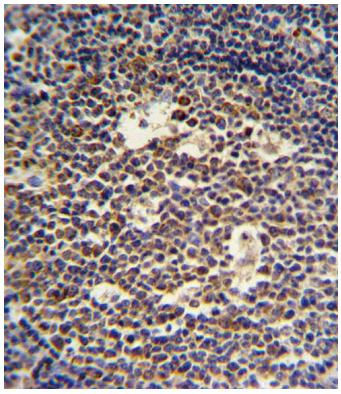
Wong, H.L., et al. AIDS 24(7):1025-1033(2010) Davila, S., et al. Genes Immun. 11(3):232-238(2010) Trajkov, D., et al. Indian J Tuberc 56(3):117-131(2009)

Images

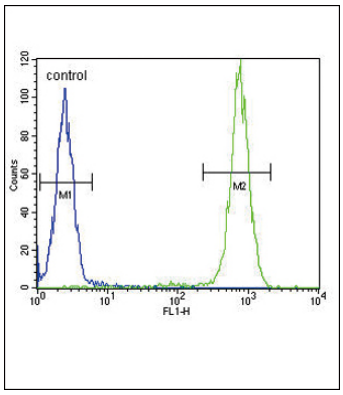


All lanes : Anti-IL4 Antibody (C-term)at 1:500 dilution Lane 1:Human plasma lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 16kDa Blocking/Dilution buffer: 5% NFDM/TBST.

IL4 Antibody (C-term) (Cat. #AP5241b) IHC analysis in formalin fixed and paraffin embedded tonsil followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the IL4 Antibody (C-term) for immunohistochemistry. Clinical



relevance has not been evaluated.



IL4 Antibody (C-term) (Cat. #AP5241b) flow cytometric analysis of WiDr cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- A SnoRNA-derived piRNA interacts with human interleukin-4 pre-mRNA and induces its decay in nuclear exosomes.
- Nasal IL-4(+)CXCR5(+)CD4(+) T follicular helper cell counts correlate with local IgE production in eosinophilic nasal polyps.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.