

# IL-4 Polyclonal Antibody

Catalog # AP73328

## Product Information

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Application	WB, IHC-P
Primary Accession	<a href="#">P05112</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	17492

## Additional Information

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Gene ID	3565
Other Names	IL4; Interleukin-4; IL-4; B-cell stimulatory factor 1; BSF-1; Binetrakin; Lymphocyte stimulatory factor 1; Pitrakinra
Dilution	WB~~Western Blot: 1/500 - 1/2000. IHC-p: 1:100-300 ELISA: 1/20000. Not yet tested in other applications. IHC-P~~Western Blot: 1/500 - 1/2000. IHC-p: 1:100-300 ELISA: 1/20000. Not yet tested in other applications.
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20°C

## Protein Information

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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: <a href="#">1993171</a> , PubMed: <a href="#">3016727</a> ). Induces the expression of class II MHC molecules on resting B-cells. Enhances both secretion and cell surface expression of IgE and IgG1 (PubMed: <a href="#">1993171</a> ). Also regulates the expression of the low affinity Fc receptor for IgE (CD23) on both lymphocytes and monocytes (PubMed: <a href="#">2521231</a> ). 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: <a href="#">10219247</a> , PubMed: <a href="#">11526337</a> , PubMed: <a href="#">18243101</a> ).

Engagement of both types of receptors initiates JAK3 and to a lower extent JAK1 phosphorylation leading to activation of the signal transducer and activator of transcription 6/STAT6 (PubMed:[7721895](#)).

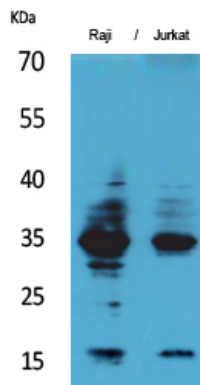
#### Cellular Location

Secreted.

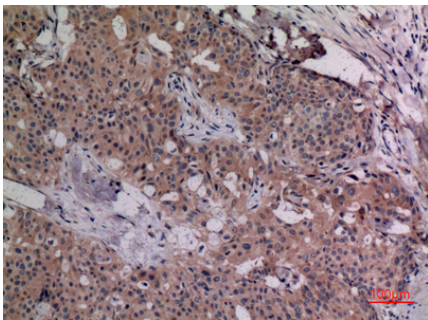
## Background

Participates in at least several B-cell activation processes as well as of other cell types (PubMed: [3016727](#)). It is a costimulator of DNA-synthesis. It induces the expression of class II MHC molecules on resting B-cells. It enhances both secretion and cell surface expression of IgE and IgG1. It also regulates the expression of the low affinity Fc receptor for IgE (CD23) on both lymphocytes and monocytes. Positively regulates IL31RA expression in macrophages (By similarity). Stimulates autophagy in dendritic cells by interfering with mTORC1 signaling and through the induction of RUFY4 (By similarity).

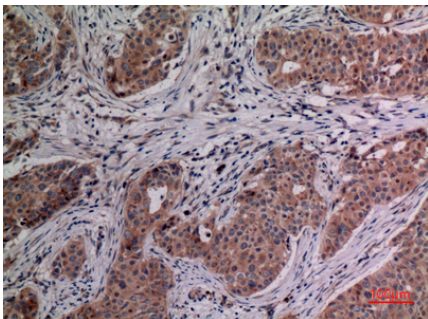
## Images



Western Blot analysis of Raji, Jurkat cells using IL-4 Polyclonal Antibody.. Secondary antibody was diluted at 1:20000



Immunohistochemical analysis of paraffin-embedded human-breast-cancer, antibody was diluted at 1:100



Immunohistochemical analysis of paraffin-embedded human-breast-cancer, antibody was diluted at 1:100

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