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Product datasheet for PP1026P1

IL4 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IHC, WB
Recommended Dilution:	**Neutralization** To yield one-half maximal inhibition [ND50] of the biological activity of hIL-4 (1.50 ng/ml), a concentration of 0.03-0.05 µg/ml of this antibody is required. **ELISA** Indirect: To detect hIL-4 by indirect ELISA (using 100 µl/well antibody solution) a concentration of 0.5-2.0 µg/ml of this antibody is required. This antigen affinity purified antibody, in conjunction with compatible secondary reagents, allows the detection of at least 0.2-0.4 ng/well of recombinant hIL-4. Sandwich: To detect hIL-4 by sandwich ELISA (using 100 µl/well antibody solution) a concentration of 0.5-2.0 µg/ml of this antibody is required. This antigen affinity purified antibody, in conjunction with Biotinylated Anti-Human IL-4 (PP1026B1 or PP1026B2) as a detection antibody, allows the detection of at least 0.2-0.4 ng/well of recombinant hIL-4. **Western Blot** To detect hIL-4 by Western Blot analysis this antibody can be used at a concentration of 0.1-0.2 µg/ml. Used in conjunction with compatible secondary reagents the detection limit for recombinant hIL-4 is 1.5-3.0 ng/lane, under either reducing or non-reducing conditions. Immunohistochemistry Formalin-fixed, paraffin-embedded sections. Recommended concentration is 0.25 µg/mL with an overnight incubation at 4˚C. Heat induced antigen retrieval with a pH 6.0 sodium citrate buffer is recommended. Additional protein blocks were used in conjunction with the secondary reagents. Optimal concentrations and conditions may vary.
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Highly pure (>98%) recombinant hIL-4 (human IL-4)
Specificity:	Specific for Interleukin-4.
Formulation:	PBS, pH 7.2 without preservatives. State: Aff - Purified State: Lyophilized (sterile filtered) purified IgG fraction

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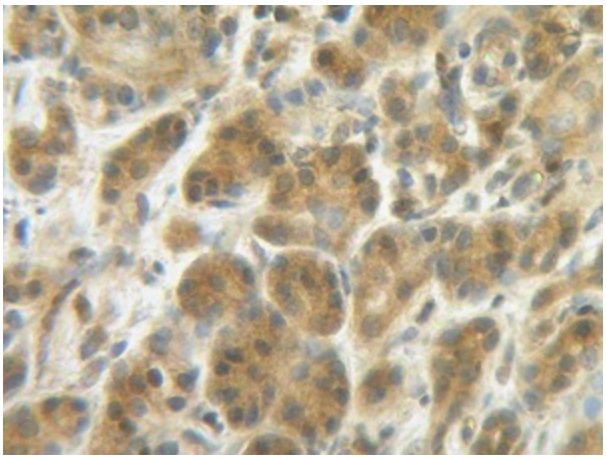
Reconstitution Method:	Restore in sterile water to a concentration of 0.1-1.0 mg/ml.
Purification:	Affinity Chromatography.
Conjugation:	Unconjugated
Storage:	Store the antibody prior to reconstitution at -20Â°C. Following reconstitution the antibody can be stored at 2-8Â°C for one month or at -20Â°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: One year from despatch.
Gene Name:	interleukin 4
Database Link:	Entrez Gene 3565 Human P05112
Background:	IL4 is a pleiotropic cytokine produced by activated T cells, mast cells and basophils. It 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. IL4 elicits many different biological responses, but has two dominant functions. The first is regulating differentiation of naïve CD4+ T cell to the Th2 type. Th2 cells produce IL4, IL5, IL10 and IL13, which tend to favor a humoral immune response while suppressing a cell mediated immune response controlled by Th1 cells. 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. The second is regulating IgE and IgG1 production by B cells. Two alternatively spliced transcript variants of this gene encoding distinct isoforms have been reported.
Synonyms:	IL-4, BSF1, Lymphocyte stimulatory factor 1, Binetrakin, Pitrakinra
Protein Families:	Druggable Genome, Secreted Protein
Protein Pathways:	Allograft rejection, Asthma, Autoimmune thyroid disease, Cytokine-cytokine receptor interaction, Fc epsilon RI signaling pathway, Hematopoietic cell lineage, Jak-STAT signaling pathway, T cell receptor signaling pathway

Product images:



Immunohistochemistry. This antibody stained formalin-fixed, paraffin embedded sections of human breast invasive ductal carcinoma. The recommended concentration is 0.25 ug/mL with an overnight incubation at 4°C. An HRP-labeled polymer detection system was used with a DAB chromogen. Heat induced antigen retrieval with a pH 6.0 sodium citrate buffer is recommended. Additional protein blocks were used in conjunction with the secondary reagents. Optimal concentrations and conditions may vary. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the National Cancer Institute.