

## Product datasheet for **PM1001A**

### IL4 Mouse Monoclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, FN, IHC
Recommended Dilution:	<b>Sandwich ELISA:</b> In a Sandwich ELISA (assuming 100 µl/well), a concentration of 0.5-1.0 µg/ml of this antibody will detect at least 2000 pg/ml of recombinant human IL-4 when used with Biotinylated antigen affinity purified anti-Human IL-4 (Cat.-No PP1026B) as the detection antibody at a concentration of approximately 2.0-4.0 µg/ml. <b>Neutralization:</b> To yield one-half maximal inhibition [ND50] of the biological activity of hIL-4 (0.5 ng/ml), a concentration of 3.0-4.5 µg/ml is required. <b>Western blot:</b> Use at a concentration of 0.20-0.50 µg/ml. Used in conjunction with compatible secondary reagents the detection limit for recombinant hIL-4 is 0.25-1.0 ng/lane, under reducing or non-reducing conditions.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Highly pure (>98%) <i>E.coli</i> 15.1 KDa derived recombinant Human IL-4 (Cat.-No PA077).
Specificity:	Reacts with Human Interleukin-4 / IL4. Other species not tested.
Formulation:	PBS without preservatives State: Azide Free State: Lyophilized purified Ig fraction
Reconstitution Method:	Restore in sterile water to a concentration of 1.0 mg/ml.
Purification:	Affinity Chromatography on Protein A
Conjugation:	Unconjugated
Storage:	Store lyophilized at 2-8°C for 6 months or at -20°C long term. After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	interleukin 4



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**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