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Interleukin-4 (IL-4)

10 µg

For Research Use Only. Not for Use in Diagnostic Procedures.

MW (kDa):
15

UniProt ID:
#P05112

Entrez-Gene Id:
3565

Background

Interleukin-4 (IL-4) is a cytokine secreted by activated T cells, basophils, and mast cells (1,2). While it contributes to many immunomodulatory responses, it is mainly recognized as the cytokine responsible for eliciting differentiation of naive T cells into Th2 lineage cells that are defined by their secretion of IL-4, IL-5, and IL-10 (3). In addition, IL-4 contributes to immunoglobulin class switching by inducing the production of IgE from B cells (4,5). IL-4 acts through the IL-4 receptor, leading to tyrosine phosphorylation and activation of the Stat6 transcription factor (6).

Purity

>95%

Source / Purification

Recombinant human IL-4 expressed in *E. coli*

Bioactivity

The specific activity is 5×10^6 IU/mg.

Background References

1. Yokota, T. et al. (1986) *Proc Natl Acad Sci USA* 83, 5894-8.
2. Grabstein, K. et al. (1986) *J Exp Med* 163, 1405-14.
3. Kopf, M. et al. (1993) *Nature* 362, 245-8.
4. Kotowicz, K. and Callard, R.E. (1993) *Eur J Immunol* 23, 2250-6.
5. Thyphronitis, G. et al. (1989) *Proc Natl Acad Sci USA* 86, 5580-4.
6. Hou, J. et al. (1994) *Science* 265, 1701-6.

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