

Datasheet: PMP81

Description:	RECOMBINANT MOUSE INTERLEUKIN-4
Name:	IL-4
Format:	Rec. Protein
Product Type:	Recombinant Protein
Quantity:	20 µg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
ELISA	▪			0.2 - 0.4ng/well
Western Blotting	▪			1.5 - 3.0ng/lane
Functional Assays	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Mouse
Product Form	Purified recombinant protein - lyophilised
Reconstitution	Reconstitute with 200ul distilled water. Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution.
Preparation	Purified recombinant IL-4 expressed in <i>E.coli</i>
Preservative Stabilisers	None present
Endotoxin Level	<1EU/ug
Approx. Protein Concentrations	0.1mg/ml after reconstitution
External Database Links	<p>UniProt: P07750 Related reagents</p> <p>Entrez Gene: 16189 IL4 Related reagents</p>

Synonyms IL-4

Product Information **Recombinant Murine interleukin-4** is an *E. coli* derived preparation of Interleukin-4 (IL-4), also known as B-cell stimulatory factor 1. Interleukin-4 is a pleiotropic cytokine which interacts with multiple cell lineages, including T cells, fibroblasts and haematopoietic cells, and is one of the most important factors involved in B cell IgG1 and IgE class switching. IL-4 acts as a regulator of low affinity Fc receptor for IgE (CD23) expression on both lymphocytes and monocytes.

Molecular Weight 13.5kD (120 amino acid residues)

Activity The ED₅₀ was determined by the dose-dependent proliferation of murine HT-2 cells is < 2.0 ng/ml, corresponding to a specific activity of > 5 x 10⁵ units/mg.

Purity >98% by SDS PAGE and HPLC analysis

ELISA PMP81 may be used as a standard in an ELISA application with [AAM36](#).

Western Blotting PMP81 may be used as a positive control for western blotting applications with [AAM36](#).

References

1. Thomas, M.J. *et al.* (2002) CD8 T cells inhibit IgE via dendritic cell IL-12 induction that promotes Th1 T cell counter-regulation. [J Immunol. 168 \(1\): 216-23.](#)
2. Bénéteau, M. *et al.* (2012) Combination of glycolysis inhibition with chemotherapy results in an antitumor immune response. [Proc Natl Acad Sci U S A. 109: 20071-6.](#)
3. Lam, R.S. *et al.* (2016) Unprimed, M1 and M2 Macrophages Differentially Interact with *Porphyromonas gingivalis*. [PLoS One. 11 \(7\): e0158629.](#)

Storage Prior to reconstitution store at +4°C. Following reconstitution store at -20°C.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the protein. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life 3 months from date of reconstitution.

Health And Safety Information Material Safety Datasheet documentation #10268 available at: 10268: <https://www.bio-rad-antibodies.com/uploads/MSDS/10268.pdf>

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