

## Datasheet: PMP81

**BATCH NUMBER 167154**

<b>Description:</b>	RECOMBINANT MOUSE INTERLEUKIN-4
<b>Name:</b>	IL-4
<b>Format:</b>	Rec. Protein
<b>Product Type:</b>	Recombinant Protein
<b>Quantity:</b>	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](http://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.

<b>Target Species</b>	Mouse
<b>Product Form</b>	Purified recombinant protein - lyophilized
<b>Reconstitution</b>	Reconstitute with 200 µl 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.
<b>Preparation</b>	Purified recombinant IL-4 expressed in <i>E.coli</i>
<b>Source</b>	E.coli
<b>Preservative Stabilisers</b>	None present
<b>Carrier Free</b>	Yes
<b>Endotoxin Level</b>	< 1.0 EU/ug

<b>Approx. Protein Concentrations</b>	0.1 mg/ml after reconstitution
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">P07750</a> <a href="#">Related reagents</a>  <b>Entrez Gene:</b> <a href="#">16189</a> IL4 <a href="#">Related reagents</a>
<b>Synonyms</b>	IL-4
<b>Product Information</b>	<b>Recombinant Murine interleukin-4</b> is an <i>E.coli</i> 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.
<b>Protein Molecular Weight</b>	13.5 kDa (120 amino acid residues)
<b>Activity</b>	The ED <sub>50</sub> 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 10 <sup>5</sup> units/mg.
<b>Purity</b>	>98% by SDS PAGE and HPLC
<b>ELISA</b>	PMP81 may be used as a standard in an ELISA application with <a href="#">AAM36</a> .
<b>Western Blotting</b>	PMP81 may be used as a positive control for western blotting applications with <a href="#">AAM36</a> .
<b>References</b>	1. Thomas, M.J. <i>et al.</i> (2002) CD8 T cells inhibit IgE via dendritic cell IL-12 induction that promotes Th1 T cell counter-regulation. <a href="#">J Immunol. 168 (1): 216-23.</a> 2. Bénéteau, M. <i>et al.</i> (2012) Combination of glycolysis inhibition with chemotherapy results in an antitumor immune response. <a href="#">Proc Natl Acad Sci U S A. 109: 20071-6.</a> 3. Lam, R.S. <i>et al.</i> (2016) Unprimed, M1 and M2 Macrophages Differentially Interact with <i>Porphyromonas gingivalis</i> . <a href="#">PLoS One. 11 (7): e0158629.</a>
<b>Storage</b>	<p>Prior to reconstitution store at -20°C. Following reconstitution store at -20°C.</p> <p>This product should be stored undiluted.</p> <p>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.</p>
<b>Guarantee</b>	Guaranteed for 3 months from the date of reconstitution or until the date of expiry, whichever comes first. Please see label for expiry date.

**Health And Safety  
Information**

Material Safety Datasheet documentation #10268 available at:  
<https://www.bio-rad-antibodies.com/SDS/PMP81>  
10268

**Regulatory**

For research purposes only

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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)  
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