

# Datasheet: PMP71 **BATCH NUMBER 166167**

Description:	RECOMBINANT MOUSE INTERLEUKIN-1 BETA		
Name:	IL-1 BETA		
Format:	Rec. Protein		
Product Type:	Recombinant Protein		
Quantity:	10 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.biorad-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 - lyophilized			
Reconstitution	Reconstitute with 0.1 ml 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 murine IL-1 beta, expressed in <i>E. coli</i>			
Source	E.coli			
Preservative Stabilisers	None present			
Carrier Free	Yes			
Endotoxin Level	< 0.1 ng/ug			

Approx. Protein Concentrations	0.1 mg/ml after reconstitution			
External Database Links	UniProt: P10749 Related reagents  Entrez Gene: 16176 II1b Related reagents			
Product Information	Interleukin-1 beta (IL-1 beta), is a 17.5 kDa proinflammatory, cell-associated cytokine, produced by monocytes, tissue macrophages, keratinocytes and other epithelial cells. IL-1 beta promotes the proliferation of memory T cells and cytokine production. It attenuates regulatory T cell function and enables CD4+CD25- autoreactive effectors to avoid suppression. IL-1 beta signals downstream of myc and is required for angiogenesis and invasiveness of tumor cells. IL-1 beta is directly involved in neuronal injury in neurodegenerative disorders, and stimulates mitogenic FGF-like activity, bone resorption and promotes the release of collagenase and prostaglandin from synovial cells.			
Protein Molecular Weight	17.5 kDa (153 amino acid residues)			
Activity	The ED $_{50}$ as determined by the dose-dependent stimulation of murine D10S cells is <0.002ng/ml, corresponding to a specific activity of > $5x10^8$ units/mg.			
Purity	>98% by SDS PAGE and HPLC analysis			
ELISA	PMP71 may be used as an ELISA standard for our <u>AAM13G</u> and <u>AAM13B</u> antibodies.			
Western Blotting	PMP71 may be used as a postive control for Western blotting applications with our <a href="MAM13G"><u>AAM13B</u></a> antibodies.			
References	1. Allan, S. <i>et al.</i> (2005) Interleukin-1 and neuronal injury. <u>Nature Reviews Immunology 5:</u> 629-640.			
Storage	Prior to reconstitution store at -20°C.  After reconstitution store at -20°C.  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.			
Guarantee	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: <a href="https://www.bio-rad-antibodies.com/SDS/PMP71">https://www.bio-rad-antibodies.com/SDS/PMP71</a> 10268			
Regulatory	For research purposes only			

## **Related Products**

## **Recommended Useful Reagents**

### RABBIT ANTI MOUSE INTERLEUKIN-1 BETA (AAM13G)

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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 'M415800:230113'

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