

## Datasheet: PBP008

<b>Description:</b>	RECOMBINANT BOVINE INTERLEUKIN-1 BETA
<b>Name:</b>	IL-1 BETA
<b>Format:</b>	Purified
<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	▪			
Functional Assays	▪			

Where this protein 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.

<b>Target Species</b>	Bovine
<b>Species Cross Reactivity</b>	<p>Reacts with: Mouse</p> <p><b>N.B.</b> Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.</p>
<b>Product Form</b>	Purified Recombinant Protein - lyophilized
<b>Reconstitution</b>	<p>Reconstitute with 0.5 ml distilled water.</p> <p>Further dilutions should be made in a buffer containing carrier protein.</p> <p>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.</p>
<b>Preparation</b>	Recombinant protein expressed in <i>Pichia pastoris</i>
<b>Source</b>	<i>Pichia pastoris</i>

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	None present
Endotoxin Level	< 1.0 EU/ug
Approx. Protein Concentrations	40ug/ml after reconstitution
External Database Links	<p><b>UniProt:</b></p> <p><a href="#">P09428</a>   <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b></p> <p><a href="#">281251</a>   IL1B   <a href="#">Related reagents</a></p>
Product Information	<p><b>Recombinant Bovine Interleukin-1 beta</b> is a recombinant peptide corresponding to full-length mature Bovine Interleukin-1 beta (IL-1 beta) expressed by a number of cell types including monocytes, macrophages and endothelial cells.</p> <p>Interleukin-1 beta, a pro-inflammatory cytokine has a wide range of effects, such as promoting T and B cell proliferation and inducing neutrophil chemotaxis.</p>
Protein Molecular Weight	17.7kD
Purity	>95% by SDS PAGE analysis
ELISA	This product may be used as a standard for ELISA applications with the following interleukin-1 beta antibodies: <a href="#">AHP851Z</a> , <a href="#">AHP851B</a> or <a href="#">MCA1658</a> .
References	<ol style="list-style-type: none"> <li>1. Stradner, M.H. <i>et al.</i> (2008) Spingosine-1-phosphate stimulates proliferation and counteracts interleukin-1 induced nitric oxide formation in articular chondrocytes. <a href="#">Osteoarthritis Cartilage. 16: 305-11.</a></li> <li>2. Bougarn, S. <i>et al.</i> (2010) Muramyl dipeptide synergizes with <i>Staphylococcus aureus</i> lipoteichoic acid to recruit neutrophils in the mammary gland and to stimulate mammary epithelial cells. <a href="#">Clin Vaccine Immunol. 17(11):1797-809.</a></li> <li>3. Simojoki, H. <i>et al.</i> (2011) Innate immune response in experimentally induced bovine intramammary infection with <i>Staphylococcus simulans</i> and <i>S. epidermidis</i>. <a href="#">Vet Res. 42: 49.</a></li> <li>4. Vordermeier, M. <i>et al.</i> (2012) Cytokine responses of Holstein and Sahiwal zebu derived monocytes after mycobacterial infection. <a href="#">Trop Anim Health Prod. 44: 651-5.</a></li> <li>5. Doull, L. <i>et al.</i> (2015) Late production of CXCL8 in ruminant oro-nasal turbinate cells in response to <i>Chlamydia abortus</i> infection. <a href="#">Vet Immunol Immunopathol. 168 (1-2): 97-102.</a></li> <li>6. Carroll, J.A. <i>et al.</i> (2017) In utero exposure to LPS alters the postnatal acute-phase response in beef heifers. <a href="#">Innate Immun. 23 (1): 97-108.</a></li> </ol>
Storage	This product is shipped at ambient temperature.

Prior to reconstitution store at +4°C.  
Following reconstitution store at -70°C.  
Storage in frost-free freezers is not recommended.

This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the protein. Should this product contain a precipitate we recommend microcentrifugation before use.

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<b>Guarantee</b>	12 months from date of despatch
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10302 available at: <a href="https://www.bio-rad-antibodies.com/SDS/PBP008">https://www.bio-rad-antibodies.com/SDS/PBP008</a> 10302
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<b>Regulatory</b>	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)  
'M441556:250523'

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