

## Datasheet: AAR15B

**BATCH NUMBER 166532**

<b>Description:</b>	RABBIT ANTI RAT INTERLEUKIN-1 BETA:Biotin
<b>Specificity:</b>	IL-1 BETA
<b>Format:</b>	Biotin
<b>Product Type:</b>	Polyclonal Antibody
<b>Isotype:</b>	Polyclonal IgG
<b>Quantity:</b>	50 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
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin	▪			
ELISA	▪			0.25 - 1.0ug/ml
Western Blotting	▪			0.1 - 0.2ug/ml

Where this antibody 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 antibody for use in their own system using the appropriate negative/positive controls.

#### Target Species

Rat

#### Product Form

Purified IgG conjugated to Biotin - lyophilized

#### Reconstitution

Reconstitute with 0.5ml sterile PBS containing 0.1% bovine serum albumin. 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. For long term storage the addition of 0.09% sodium azide is recommended. N.B. For functional studies do not add sodium azide

#### Antiserum Preparation

Antisera to rat IL-1 beta were raised by repeated immunisations of rabbits with highly purified antigen. Purified IgG was prepared from whole serum by affinity chromatography.

#### Buffer Solution

Phosphate buffered saline

<b>Preservative Stabilisers</b>	None Present
<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 0.1 mg/ml after reconstitution
<b>Immunogen</b>	Recombinant rat IL-1 beta ( <a href="#">PRP23</a> ).
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">Q63264</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">24494</a>    Il1b    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_2233647
<b>Specificity</b>	<b>Rabbit anti Rat Interleukin-1 beta antibody</b> recognizes rat IL-1 beta. Interleukin-1 $\beta$ is a 152 amino acid active pro-inflammatory cytokine produced with an additional 116 amino acid pro-peptide region. IL-1 $\beta$ has a broad mode of action, stimulating prostaglandin synthesis, neutrophil, T cell and B cell activation and collagen synthesis.
<b>ELISA</b>	This product may be used in a direct ELISA or as a detection reagent in a sandwich ELISA together with <a href="#">AAR15G</a> as the capture reagent and <a href="#">PRP23</a> as the standard.
<b>References</b>	<ol style="list-style-type: none"> <li>Girard, S. (2008) Pro-inflammatory disequilibrium of the IL-1 beta/IL-1ra ratio in an experimental model of perinatal brain damages induced by lipopolysaccharide and hypoxia-ischemia. <a href="#">Cytokine. 43: 54-62.</a></li> <li>Weksler-Zangen, S. <i>et al.</i> (2008) Impaired glucose-stimulated insulin secretion is coupled with exocrine pancreatic lesions in the Cohen diabetic rat. <a href="#">Diabetes. 57: 279-87.</a></li> <li>Glatz, T. <i>et al.</i> (2010) Peroxisome-proliferator-activated receptors gamma and peroxisome-proliferator-activated receptors beta/delta and the regulation of interleukin 1 receptor antagonist expression by pioglitazone in ischaemic brain. <a href="#">J Hypertens. 28: 1488-97.</a></li> <li>Calveley, V.L. <i>et al.</i> (2010) Genistein can mitigate the effect of radiation on rat lung tissue. <a href="#">Radiat Res. 173 (5): 602-11.</a></li> <li>Mahmood, J. <i>et al.</i> (2011) Mitigation of radiation-induced lung injury by genistein and EUK-207. <a href="#">Int J Radiat Biol. 87: 889-901.</a></li> <li>Mahmood, J. <i>et al.</i> (2013) Mitigation of radiation-induced lung injury with EUK-207 and genistein: effects in adolescent rats. <a href="#">Radiat Res. 179 (2): 125-34.</a></li> <li>Cho, G.S. <i>et al.</i> (2013) N-Methyl-D-aspartate receptor antagonists memantine and MK-801 attenuate the cerebral infarct accelerated by <i>intracorporis callosum</i> injection of lipopolysaccharides. <a href="#">Neurosci Lett. 538: 9-14.</a></li> <li>Savard, A. <i>et al.</i> (2013) Involvement of neuronal IL-1<math>\beta</math> in acquired brain lesions in a rat model of neonatal encephalopathy. <a href="#">J Neuroinflammation. 10: 110.</a></li> <li>Aharon-Hananel G <i>et al.</i> (2015) Antidiabetic Effect of Interleukin-1<math>\beta</math> Antibody Therapy Through <math>\beta</math>-Cell Protection in the Cohen Diabetes-Sensitive Rat. <a href="#">Diabetes. 64 (5): 1780-5.</a></li> </ol>

10. Bergeron, J. *et al.* (2016) Activation of the IL-1 $\beta$ /CXCL1/MMP-10 axis in chorioamnionitis induced by inactivated Group B Streptococcus. [Placenta. 47: 116-23.](#)
11. Alizadeh, A. *et al.* (2017) Neuregulin-1 positively modulates glial response and improves neurological recovery following traumatic spinal cord injury. [Glia. 65 \(7\): 1152-75.](#)
12. Miyai, H. *et al.* (2017) Topical application of ointment containing 0.5% green tea catechins suppresses tongue oxidative stress in 5-fluorouracil administered rats. [Arch Oral Biol. 82: 247-55.](#)
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15. Barreto, R.B. *et al.* (2022) Application of Formononetin for the Treatment of Knee Osteoarthritis Induced by Medial Meniscectomy in a Rodent Model [Applied Sciences. 12 \(17\): 8591.](#)

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**Storage** Prior to reconstitution store at -20°C.  
After 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 antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10294 available at: <https://www.bio-rad-antibodies.com/SDS/AAR15B>  
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**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)  
'M399057:220628'

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