

Datasheet: AAR15G

BATCH NUMBER 165033

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| Description: | RABBIT ANTI RAT INTERLEUKIN-1 BETA |
| Specificity: | IL-1 BETA |
| Format: | Purified |
| Product Type: | Polyclonal Antibody |
| Isotype: | Polyclonal IgG |
| Quantity: | 0.1 mg |

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 |
|----------------------------|-----|----|----------------|-----------------------|
| Flow Cytometry | | | ▪ | |
| Immunohistology - Frozen | | | ▪ | |
| Immunohistology - Paraffin | ▪ | | | |
| ELISA | ▪ | | | 0.5ug/ml - 2.0ug/ml |
| Immunoprecipitation | | | ▪ | |
| Western Blotting | ▪ | | | 0.1ug/ml - 0.2ug/ml |
| Functional Assays | ▪ | | | 0.09ug/ml - 0.14ug/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.

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| Target Species | Rat |
| Product Form | Purified IgG - lyophilized |
| Reconstitution | Reconstitute with 0.1ml 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. 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 immunisation of rabbits with highly purified antigen. Purified IgG prepared by antigen affinity chromatography.

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| Buffer Solution | Phosphate buffered saline |
| Preservative Stabilisers | None present. |
| Carrier Free | Yes |
| Approx. Protein Concentrations | IgG concentration 1.0 mg/ml after reconstitution. |
| Immunogen | Recombinant rat IL-1 beta (PRP23). |
| External Database Links | <p>UniProt: Q63264 Related reagents</p> <p>Entrez Gene: 24494 Il1b Related reagents</p> |
| RRID | AB_2264733 |
| Specificity | Rabbit anti Rat Interleukin-1 beta antibody recognizes rat IL-1 beta. Interleukin-1 β 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. |
| ELISA | This product may be used in an indirect ELISA or as a capture antibody in a sandwich ELISA together with AAR15B as the detection reagent and PRP23 as the standard. |
| References | <ol style="list-style-type: none"> 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. Cytokine. 43: 54-62. Weksler-Zangen, S. <i>et al.</i> (2008) Impaired glucose-stimulated insulin secretion is coupled with exocrine pancreatic lesions in the Cohen diabetic rat. Diabetes. 57: 279-87. 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. J Hypertens. 28: 1488-97. Calveley, V.L. <i>et al.</i> (2010) Genistein can mitigate the effect of radiation on rat lung tissue. Radiat Res. 173 (5): 602-11. Mahmood, J. <i>et al.</i> (2011) Mitigation of radiation-induced lung injury by genistein and EUK-207. Int J Radiat Biol. 87: 889-901. Mahmood, J. <i>et al.</i> (2013) Mitigation of radiation-induced lung injury with EUK-207 and genistein: effects in adolescent rats. Radiat Res. 179 (2): 125-34. 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>intracorpous callosum</i> injection of lipopolysaccharides. Neurosci Lett. 538: 9-14. Savard, A. <i>et al.</i> (2013) Involvement of neuronal IL-1β in acquired brain lesions in a rat model of neonatal encephalopathy. J Neuroinflammation. 10: 110. |

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13. Kataria, H. *et al.* (2018) Neuregulin-1 promotes remyelination and fosters a pro-regenerative inflammatory response in focal demyelinating lesions of the spinal cord. [Glia. 66 \(3\): 538-61.](#)
14. Dyck, S. *et al.* (2018) Perturbing chondroitin sulfate proteoglycan signaling through LAR and PTP σ receptors promotes a beneficial inflammatory response following spinal cord injury. [J Neuroinflammation. 15 \(1\): 90.](#)
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.](#)
16. Hart, C.G. *et al.* (2020) Acute upregulation of bone morphogenetic protein-4 regulates endogenous cell response and promotes cell death in spinal cord injury. [Exp Neurol. 325: 113163.](#)

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.

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10294 available at: <https://www.bio-rad-antibodies.com/SDS/AAR15G>
10294

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)

Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)

Sheep Anti Rabbit IgG (STAR35...) [RPE](#)

Recommended Useful Reagents

[TidyBlot WESTERN BLOT DETECTION REAGENT:HRP \(STAR209P\)](#)

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batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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