Datasheet: AAR15G

BATCH NUMBER 164810

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.

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.

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	**UniProt:** Q63264 Related reagents **Entrez Gene:** 24494 Il1b Related reagents
RRID	AB_2264733
Specificity	**Rabbit anti Rat Interleukin-1 beta antibody** recognizes rat IL-1 beta. Interleukin-1β 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	1. 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. 2. Weksler-Zangen, S. *et al.* (2008) Impaired glucose-stimulated insulin secretion is coupled with exocrine pancreatic lesions in the Cohen diabetic rat. Diabetes. 57: 279-87. 3. Glatz, T. *et al.* (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. 4. Calveley, V.L. *et al.* (2010) Genistein can mitigate the effect of radiation on rat lung tissue. Radiat Res. 173 (5): 602-11. 5. Mahmood, J. *et al.* (2011) Mitigation of radiation-induced lung injury by genistein and EUK-207. Int J Radiat Biol. 87: 889-901. 6. Mahmood, J. *et al.* (2013) Mitigation of radiation-induced lung injury with EUK-207 and genistein: effects in adolescent rats. Radiat Res. 179 (2): 125-34. 7. Cho, G.S. *et al.* (2013) N-Methyl-D-aspartate receptor antagonists memantine and MK-801 attenuate the cerebral infarct accelerated by *intracorpus callosum* injection of lipopolysaccharides. Neurosci Lett. 538: 9-14. 8. Savard, A. *et al.* (2013) Involvement of neuronal IL-1β in acquired brain lesions in a rat model of neonatal encephalopathy. J Neuroinflammation. 10: 110.

9. Aharon-Hananel G *et al.* (2015) Antidiabetic Effect of Interleukin-1β Antibody Therapy Through β-Cell Protection in the Cohen Diabetes-Sensitive Rat. Diabetes. 64 (5): 1780-5.
10. Bergeron, J. *et al.* (2016) Activation of the IL-1β/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.
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 PTPσ 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.
17. Roy, P. *et al.* (2024) Protective effects of the R-(+)-thioctic acid treatment: possible anti-inflammatory activity on heart of hypertensive rats. BMC Complement Med Ther. 24 (1): 281.

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 (H/L) (STAR124...)	HRP
Sheep Anti Rabbit IgG (STAR35...)	RPE
Goat Anti Rabbit IgG (Fc) (STAR121...)	Biotin, FITC, HRP

Recommended Useful Reagents

TidyBlot WESTERN BLOT DETECTION REAGENT:HRP (STAR209P)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	**Worldwide**	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	**Europe**	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com

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

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