



## **Biotinylated Bovine IL-1 $\beta$ Polyclonal Antibody**

Antigen-affinity purified goat anti-bovine IL-1 $\beta$  antibody

Catalog Number: GR109075

### **Background**

Interleukin-1 beta (IL-1 $\beta$ ) also known as catabolin, is a member of the interleukin 1 cytokine family. IL-1 $\beta$  precursor is cleaved by caspase 1 (interleukin 1 beta convertase). Cytosolic thiol protease cleaves the product to form mature IL-1 $\beta$ . Interleukin-1 alpha and interleukin-1 beta forms IL-1 (1,2,3). IL-1 $\beta$  is produced by activated macrophages as a proprotein, which is proteolytically processed to its active form by caspase 1 (CASP1/ICE). This cytokine is an important mediator of the inflammatory response, and is involved in a variety of cellular activities, including cell proliferation, differentiation, and apoptosis. The induction of cyclooxygenase-2 (PTGS2/COX2) by this cytokine in the central nervous system (CNS) is found to contribute to inflammatory pain hypersensitivity. IL-1 $\beta$  gene and eight other interleukin 1 family genes form a cytokine gene cluster on chromosome 2.

### **References**

1. Auron PE, et al (1984). Proc Natl Acad Sci U S A 81 (24): 7907–11.
2. March CJ, et al. (1985). Nature 315 (6021): 641–7.
3. Clark BD, et al (1986). Nucleic Acids Res 14 (20): 7897–1914.

**FOR LABORATORY RESEARCH USE ONLY  
NOT FOR USE IN HUMANS AND ANIMALS**

### **Related products**

1. GR238016 50 ml Reagent Reservoir, 100/case, 5 packs/case (pack of 20)
2. GR238004 Tissue Culture 96-well Microplate, individually packed, Case of 50
3. GR238019 1.5 ml Microcentrifuge tube with screw cap and free-standing, pack of 500
4. GR238007 125 ml leak-resistant HDPE bottle, colorless, pack of 24
5. GR238002 Microplate 12x8-Well Strip High Binding, Case of 50
6. GR238003 Microplate 12x8-Well Strip Medium Binding, Case of 50
7. GR238032 42592 Costar Stripwell Microplate 1 x 8 Flat Bottom, High Binding, Case of 100
8. GR238001 468667 Thermo Microplate 12x8-Well Strip Nunc Maxisorp F8, Case of 60
9. GR238031 96-well microplate sealer plastic, pack of 100



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### **Description**

Size: 50  $\mu$ g

Species reactivity: Bovine, ovine

Specificity: Detects bovine IL-1 $\beta$  in direct ELISA and Western blot, flow cytometry, immunohistochemistry.

Source: Polyclonal Goat IgG

Purification: Antigen-affinity purified

Immunogen: *E. coli* derived recombinant bovine IL-1 $\beta$ , Val21-Lys209, and Accession # NP\_001009392.1

Endotoxin Level: <0.30 EU per 1  $\mu$ g of the antibody by the LAL method.

Formulation: Lyophilized from PBS with 5% Trehalose.

### **Application**

Recommended concentration:

Western blot-0.4  $\mu$ g/ml

Immunocytochemistry-5-15  $\mu$ g/ml

ELISA: 0.5-1.0  $\mu$ g/ml

Neutralization: Measured by its ability to neutralize IL-1 $\beta$  induced proliferation in the D10.G4.1 mouse cell line. The Neutralization Dose (ND<sub>50</sub>) is typically 0.2-0.5  $\mu$ g/mL in the presence of 100 pg/mL recombinant bovine IL-1 $\beta$ .

### **Stability & Storage**

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 6 months from date of receipt, -20°C to -70°C, reconstituted.

### **DECLARATION**

THIS REAGENT IS FOR IN VITRO LABORATORY TESTING AND RESEARCH USE ONLY. DO NOT USE IT FOR CLINICAL DIAGNOSTICS. DO NOT USE OR INJECT IT IN HUMANS AND ANIMALS.