

# Biotinylated Ovine IL-1β Polyclonal Antibody

Antigen-affinity purified Rabbit anti-ovine IL-1β antibody Catalog Number: GR109101

### 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 Maxixorp 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: Ovine, bovine Specificity: Detects ovine IL-1 $\beta$  in direct ELISAs and Western blots. Source: Polyclonal Rabbit IgG Purification: Antigen-affinity purified Immunogen: *E. coli* derived recombinant ovine IL-1 $\beta$ , Ala114-Pro267, and Accession # NP\_001009465.2 Endotoxin Level: < 0.20 EU per 1  $\mu$ g of the antibody by the LAL method. Conjugate: Biotin Formulation: Lyophilized from PBS with 5% Trehalose and 1% BSA.

## Application

Recommended concentration: Western blot: 0.2-0.5 μg/ml Immunocytochemistry: 5-15 μg/ml ELISA: 0.3-1 μg/ml <u>Neutralization:</u> Measured by its ability to neutralize IL-1β induced proliferation in the D10.G4.1 mouse cell line. The Neutralization Dose (ND<sub>50</sub>) is typically 0.1-0.3 μg/mL in the presence of 100 pg/mL recombinant ovine IL-1β.

## **Stability & Storage**

Reconstitution: reconstitute at 0.2 mg/ml in sterile and 0.05% azide. Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, at -20°C to -70°C, as supplied.
- 6 months from date of receipt, at -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.