



## **Anti IL-1 $\beta$ (Rat) Serum** **Cat. No. YII-YC021-EX**

**Description:** Interleukin 1 (IL-1) consists of two proteins, IL-1 $\alpha$  and IL-1 $\beta$ , which are the products of distinct genes, but which recognize the same cell surface receptors. IL-1 $\alpha$  and IL-1 $\beta$  show approximately 25% identity in the amino acid sequence.<sup>1)</sup> Both IL-1 $\alpha$  and IL-1 $\beta$  are synthesized as 31K Da precursors that are subsequently cleaved into proteins with molecular weights of approximately 17KDa.<sup>2)3)</sup> Among various species, the amino acid sequences of mature IL-1 $\alpha$  is conserved 60% to 70%, while that of the mature IL-1 $\beta$  conserved 75% to 78%.<sup>4)</sup> Both IL-1 $\alpha$  and IL-1 $\beta$  have glycosylation sites, but non-glycosylated recombinant products have biological activities similar to the naturally occurring forms of the molecules.<sup>5)6)</sup>

**Immunogen:** Recombinant IL-1 $\beta$  (Rat)    **Host:** Goat

**for ELISA:** Approximately 0.4-1.2 ng/well of recombinant rat IL-1 $\beta$  can be detected using an antiserum concentration of dilution ratio x1000.

**for WB:** An antiserum concentration of dilution ratio x1000 will allow visualization of 0.03-0.001 ng/lane of recombinant rat IL-1 $\beta$  under reducing condition.

**Specificity:**

IL-1 $\beta$ (Rat)	100%,	IL-1 $\beta$ (Human)	19.2%
IL-1 $\alpha$ (Rat)	<0.01%	IL-1 $\alpha$ (Human)	<0.01%
TNF- $\alpha$ (Rat)	<0.01%	TNF- $\alpha$ (Human)	<0.01%
Other Cytokines	<0.01%		

**Related Antisera:** Rabbit Anti IL-1 $\alpha$ (Rat) Serum YII-YC010-EX  
Goat Anti IL-1 $\alpha$ (Rat) Serum YII-YC011-EX  
Rabbit Anti IL-1 $\beta$ (Rat) Serum YII-YC020-EX  
Anti IL-1 $\beta$ (Rat) Monoclonal Antibody YII-YC022-EX

**Related Peptides:** IL-1 $\beta$ , TNF- $\alpha$ , TNF- $\beta$ , Other Cytokines

**Storage:** Keep frozen below -20°C  
Avoid repeated freezing-thawing.

### **REFERENCES:**

- 1) Oppenheim JJ, et al., Immunol. Today, 7:45, 1986
- 2) Giri JG, Lomedico PT, Mizel SB., J. Immunol. 134:343-349, 1985
- 3) DJ Hazuda, J Stricker, F Kueppers, PL Simon, and PR Young., J.Biol.Chem., 265:6318-6322, 1990
- 4) Dodds RA, Merry K, Littlewood A, Gowen M.J., Histochem. Cytochem., 42:733-744, 1994
- 5) Dinarello CA., Blood, 77:1627-1652, 1991
- 6) Casagli MC, Borri MG, Bigio M, Rossi R, Nucci D, Bossu P, Boraschi D, Antoni G. Biochem Biophys Res Commun., 162:357-363, 1989

### **FOR RESEARCH LABORATORY USE ONLY**

DO NOT USE ORGANIC SOLVENTS FOR DISSOLVING ANTISERUM

