

**BACKGROUND**

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 17K Da.<sup>2)</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  $\beta$  is conserved 75% to 78%.<sup>3)</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  $\alpha$  (Rat)  
**for ELISA:** Approximately 0.05-0.14ng/well of recombinant rat IL-1  $\alpha$  can be detected using an antiserum concentration of dilution ratio x1000.  
**for WESTERN BLOTTING:** An antiserum concentration of dilution ratio x1000 will allow visualization of 0.01-0.003ng/lane of recombinant rat IL-1  $\alpha$  under reducing condition.

**SPECIFICITY:** IL-1  $\alpha$  (Rat) 100%, IL-1  $\alpha$  (Human) 5.9%  
IL-1  $\beta$  (Rat) <0.5%, IL-1  $\beta$  (Human) <0.5%  
TNF-  $\alpha$  (Rat) <0.5%, TNF-  $\alpha$  (Human) <0.5%  
Other Cytokines <0.5%

**RELATED ANTISERA:** Rabbit Anti IL-1  $\alpha$  (Rat) Serum YC 010  
Rabbit Anti IL-1  $\beta$  (Rat) Serum YC 020  
Goat Anti IL-1  $\beta$  (Rat) Serum YC 021  
Anti IL-1  $\beta$  (Rat) Monoclonal Antibody YC 022

**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 Strickler, 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