

**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>2,3)</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  $\beta$  is 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  $\alpha$  (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 010Rabbit Anti IL-1  $\beta$  (Rat) Serum YC 020Goat Anti IL-1  $\beta$  (Rat) Serum YC 021Anti 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:**

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- 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

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