

**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 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>

<b>IMMUNOGEN:</b>	Recombinant IL-1 $\beta$ (Rat)	
<b>for ELISA:</b>	Approximately 0.14-0.4ng/well of recombinant rat IL-1 $\beta$ can be detected using an antiserum concentration of dilution ratio x1000	
<b>for WESTERN BLOTTING:</b>	An antiserum concentration of dilution ratio x1000 will allow visualization of 0.01-0.003ng/lane of recombinant rat IL-1 $\beta$ under reducing condition.	
<b>SPECIFICITY:</b>	IL-1 $\beta$ (Rat) 100%, IL-1 $\alpha$ (Rat) <0.1%, TNF- $\alpha$ (Rat) <0.1%, Other Cytokines <0.1%	IL-1 $\beta$ (Human) 6.8% IL-1 $\alpha$ (Human) <0.1% TNF- $\alpha$ (Human) <0.1%
<b>RELATED ANTISERA:</b>	Rabbit Anti IL-1 $\alpha$ (Rat) Serum YC 010 Goat Anti IL-1 $\alpha$ (Rat) Serum YC 011 Goat Anti IL-1 $\beta$ (Rat) Serum YC 021 Anti IL-1 $\beta$ (Rat) Monoclonal Antibody YC 022	
<b>RELATED PEPTIDES:</b>	IL-1 $\alpha$ , TNF- $\alpha$ , TNF- $\beta$ , Other Cytokines	
<b>STORAGE:</b>	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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