



# Anti-Rat IL-1 beta

20150223ML



**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no.:</b>	<b>104-P04</b>
Size:	100 µg
Lot. No.:	According to product label

**Preparation:** Produced from sera of rabbits immunized with highly pure recombinant Rat IL-1 beta. Anti-Rat IL-1 beta specific antibody was purified by affinity chromatography employing an immobilized Rat IL-1 beta matrix.

## Target Background

<b>Synonyms (Target):</b>	IL1b
---------------------------	------

IL-1 $\beta$  is a proinflammatory cytokine produced in a variety of cells including monocytes, tissue macrophages, keratinocytes and other epithelial cells. Both IL-1 $\alpha$  and IL-1 $\beta$  binds to the same receptor and has similar if not identical biological properties. These cytokines have a broad range of activities including, stimulation of thymocyte proliferation, by inducing IL-2 release, B-cell maturation and proliferation, mitogenic FGF-like activity and the ability to stimulate the release of prostaglandin and collagenase from synovial cells. However, whereas IL-1 $\beta$  is a secreted cytokine, IL-1 $\alpha$  is predominantly a cell-associated cytokine. Recombinant rat IL-1 $\beta$  is a 17.4 kDa protein containing 153 amino acid residues.

### Database References Target

<b>Protein RefSeq:</b>	NP_113700
<b>Uniprot ID:</b>	Q5BKB0
<b>mRNA RefSeq:</b>	NM_031512

## Product Specifications

<b>Species reactivity</b>	Rat
<b>Clone/Ab feature</b>	Rabbit IgG
<b>Cross reactivity</b>	Rat
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal Antibody
<b>Purification</b>	Antigen-affinity purified
<b>Immunogen</b>	Recombinant rat IL-1 beta
<b>Formulation</b>	lyophilized from PBS
<b>Reconstitution buffer</b>	water

**Reconstitution:** Reconstitute the antibody in sterile water to a concentration of 0.1 - 1.0 mg/ml.

**Stability:** The lyophilized antibody is stable for at least 2 years from date of receipt at -20°C. The reconstituted antibody is stable for at least two weeks at 2-8°C. Frozen aliquots are stable for at least 6 months when stored at -20°C.



**AVOID REPEATED FREEZE AND THAW CYCLES!**

### Applications

**Neutralization:** To yield one-half maximal inhibition [ND<sub>50</sub>] of the biological activity of rat IL-1-beta (0.30 ng/ml), a concentration of 0.003 - 0.005 µg/ml of this antibody is required.

**ELISA:** To detect rat IL-1-beta by direct ELISA (using 100 µl/well antibody solution) a concentration of at least 0.5 µg/ml of this antibody is required. This antigen affinity purified antibody, in conjunction with compatible secondary reagents, allows the detection of 0.2 - 0.4 ng/well of recombinant rat IL-1-beta.

**Western Blot:** To detect rat IL-1-beta by Western Blot analysis this antibody can be used at a concentration of 0.1 - 0.2 µg/ml. Used in conjunction with compatible secondary reagents the detection limit for recombinant rat IL-1-beta is 1.5 - 3.0 ng/lane, under either reducing or non-reducing conditions.

**NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!**