



Anti-Rat IL-1 alpha

20150223ML



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

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| Cat.-no.: | 104-P22 |
| Size: | 100 µg |
| Lot. No.: | According to product label |

Preparation: Produced from sera of goats pre-immunized with highly pure (>98%) recombinant Rat IL-1 alpha. Anti-Rat IL-1 alpha specific antibody was purified by affinity chromatography employing immobilized Rat IL-1 alpha matrix.

Target Background

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|---------------------------|------------------|
| Synonyms (Target): | Il1a; IL-1 alpha |
|---------------------------|------------------|

Interleukin-1 (IL-1) is a name that designates two proteins, IL-1 alpha and IL-1 beta, which are the products of distinct genes, but which show approximately 25% amino acid sequence identity and which recognize the same cell surface receptors. Although IL-1 production is generally considered to be a consequence of inflammation, recent evidence suggests that IL-1 is also temporarily upregulated during bone formation and the menstrual cycle and can be induced in response to nervous system stimulation. In response to classic stimuli produced by inflammatory agents, infections or microbial endotoxins, a dramatic increase in the production of IL-1 by macrophages and various other cells is seen. Cells in particular known to produce IL-1 include osteoblasts, monocytes, macrophages, keratinocytes, Kupffer cells, hepatocytes, thymic and salivary gland epithelium, Schwann cells, fibroblasts and glia (oligodendroglia, astrocytes and microglia).

Database References Target

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| Protein RefSeq: | NP_058715.1 |
| Uniprot ID: | P16598 |
| mRNA RefSeq: | NM_017019 |

Product Specifications

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| Species reactivity | Rat |
| Clone/Ab feature | Rabbit IgG |
| Cross reactivity | Rat |
| Host | Rabbit |
| Clonality | Polyclonal Antibody |
| Purification | Antigen-affinity purified |
| Immunogen | Recombinant rat IL-1 alpha |
| Formulation | lyophilized from PBS |
| Reconstitution buffer | 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 [ND₅₀] of the biological activity of Rat IL-1α (50 pg/ml), a concentration of 0.011 - 0.017 µg/ml of this antibody is required.

ELISA: Indirect: To detect Rat IL-1α by indirect ELISA (using 100 µl/well antibody solution) a concentration of 0.5 - 2.0 µg/ml of this antibody is required. This antigen affinity purified antibody, in conjunction with compatible secondary reagents, allows the detection of at least 0.2 - 0.4 ng/well of recombinant Rat IL-1α.

Sandwich: To detect Rat IL-1α by sandwich ELISA (using 100 µl/well antibody solution) a concentration of 0.5 - 2.0 µg/ml of this antibody is required. This antigen affinity purified antibody, in conjunction with compatible secondary reagents, allows the detection of at least 0.2 - 0.4 ng/well of recombinant Rat IL-1α.

Western Blot: To detect Rat IL-1α 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-1α 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!