Product Information

Anti-Interleukin-1β
produced in goat, IgG fraction of antiserum

Catalog Number I3767
Storage Temperature –20 °C

Synonym: Anti-IL-1β

Description
Anti-Interleukin-1β is produced in goat using recombinant mouse IL-1β expressed in Escherichia coli as immunogen. The product is purified by Protein G affinity chromatography.

Interleukin-1 (IL-1), originally known as lymphocyte activating factor (LAF), activates T cells and lymphocytes, which then proliferate and secrete interleukin-2. IL-1 is primarily released from stimulated macrophages and monocytes, but also is released from several other cell types, and is thought to play a key role in inflammatory and immune responses. Other synonyms for IL-1 include: endogenous pyrogen (EP), mitogenic protein (MP), helper peak-1 (HP-1), T cell replacing factor III (TRF III or TRF₃), B cell activating factor (BAF) and B cell differentiation factor (BDF). The two closely related agents, interleukin-1α (IL-1α) and interleukin-1β (IL-1β) bind to the same cell surface receptor, elicit nearly identical biological responses, and share 25% homology in their amino acid sequence.

Reagent
Lyophilized from 0.2 μm-filtered solution in phosphate buffered saline containing carbohydrates.

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions
To one vial of lyophilized powder, add 1 ml of 0.2 μm-filtered PBS to produce a 1 mg/ml stock solution. If aseptic technique is used, no further filtration should be needed for use in cell culture environments.

Storage/Stability
Prior to reconstitution, store at –20 °C. Reconstituted product may be stored at 2-8 °C for up to one month. For prolonged storage, freeze in working aliquots at –20 °C. Avoid repeated freezing and thawing.

Product Profile
Neutralization: Anti-Interleukin-1β is tested for its ability to neutralize the biological activity of rmIL-1β on the mouse T-helper D10.G4.1 cell line. The ND₅₀ of the antibody is defined as the concentration of antibody resulting in a one-half maximal inhibition of bioactivity of rmIL-1β that is present at a concentration just high enough to elicit a maximum response. In this bioassay, 50 pg/ml rmIL-1β was mixed with various dilutions of antibody in a 96 well plate for 1 hour at 37 °C. After pre-incubation, D10.G4 cells and 1.25 μg/ml concanavalin A were added to the antigen-antibody mixture. The assay mixture was incubated at 37 °C for 72 hours in a humidified CO₂ incubator and pulsed during the final 4 hours with ³H-thymidine. Cells were harvested onto glass filters and the ³H-thymidine incorporation into DNA was measured.

The antibody will not neutralize the biological activity of rhIL-1β.

ND₅₀ = 2-12 μg/ml

Indirect Immunoblotting: 1-2 μg/ml antibody detects recombinant, mouse IL-1β at ≤2 ng/lane under reducing and non-reducing conditions.

The antibody shows 25% cross-reactivity with rhIL-1β in immunoblotting. In addition, the antibody shows no cross-reactivity with other cytokines tested.*

Endotoxin: <0.1 EU per 1μg of antibody (LAL method)

Sterility: 0.2 μm-filtered, aseptic fill
References

* rhANG, rhAR, rhBTC, rhβ-NGF, rmC10, rhCNTF, rrCNTF, rhEGF, rhENA-78, rhEPO, rhFGFa, rhFGFb, rhFGF-3, rhFGF-4, rhFGF-5, rhFGF-6, rhFGF-7, rhG-CSF, rhGDNF, rhGM-CSF, rhGM-CSF Rα, rmGM-CSF, rhGROα, rhGROβ, rhGROγ, rhHB-EGF, rhHGF, rh-309, rhIFN-γ, rhIGF-I, rhIGF-I R, rhIGF-II, rhIL-1α, rhIL-1 RII, rhIL-1α, rhIL-1 ra, rhIL-2, rhIL-2 sRα, rhIL-2 sRβ, rhIL-3, rhIL-3 sRα, rmIL-3, rhIL-4, rhIL-4 sR, rmIL-4, rhIL-5, rhIL-5 sRα, rhIL-5 sRβ, rmIL-5, rhIL-6, rhIL-6 sR, rmIL-6, rhIL-7, rhIL-7 R, rmIL-7, rhIL-8, rhIL-9, rmIL-9, rhIL-10, rmIL-10, rhIL-11, rhIL-12, rhIL-13, rmIL-13, rhIP-10, rmJE, rhLIF, rhLIF R, rmLIF, rhM-CSF, rmM-CSF, rhMCP-1, rmMCP-1 R, rhMDC, rhMIP-1α, rmMIP-1α, rhMIP-1β, rhMIP-1β, rhMIP-1β, rhNT-4, rhOSM, rhPD-EGF, hPDGF, pPDGF, rhPDGF-AA, rhPDGF-BB, rhPIGF, rhPTN, rhRANTES, rhSCF, rmSCF, rhSLPI, hTfR, rhTGF-α, rhTGF-β1, rhTGF-β2, rhTGF-β3, rmTGF-β5, rhLAP (TGF-β1), rhLatent TGF-β1, rhTGF-β sRII, rhTGF-β sRIII, rhTNF-α, rmTNF-α, rhTNF-β, rhTNF RII, rhVEGF.

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