



Anti-Human IL-1 beta

20200701BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	102-P08G
Size:	100 µg
Lot. No.:	According to product label

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

Target Background

Synonyms (Target):	IL1B; IL-1; IL1F2; IL1-BETA
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Interleukin-1 beta (IL-1beta) is produced by activated macrophages. IL-1beta stimulates thymocyte proliferation by inducing IL-2 release, B-cell maturation and proliferation, and fibroblast growth factor activity. IL-1beta proteins are involved in the inflammatory response, being identified as endogenous pyrogens, and are reported to stimulate the release of prostaglandin and collagenase from synovial cells. IL-1 is a name that designates two pleiotropic cytokines, IL-1 alpha (IL1F1) and IL1 beta (IL1F2), which are the products of distinct genes. IL-1 alpha and IL-1 beta are structurally related polypeptides that share approximately 21% amino acid (aa) identity in human. Both proteins are produced by a wide variety of cells in response to inflammatory agents, infections, or microbial endotoxins. While IL-1 alpha and IL-1 beta are regulated independently, they bind to the same receptor and exert identical biological effects. The human IL-1 beta cDNA encodes a 269 aa precursor. A 116 aa propeptide is cleaved intracellularly by the cysteine protease IL-1 beta converting enzyme (Caspase1/ICE) to generate the active cytokine. The mature human IL-1 beta shares 96% aa sequence identity with rhesus and 67% 78% with canine, cotton rat, equine, feline, mouse, porcine, and rat IL-1 beta.

Database References Target

Protein RefSeq:	NP_000567
Uniprot ID:	P01584
mRNA RefSeq:	NM_000576

Product Specifications

Species reactivity	Human
Clone/Ab feature	Goat IgG
Cross reactivity	Human
Host	Goat
Clonality	Polyclonal Antibody
Purification	Antigen-affinity purified
Immunogen	recombinant hIL-1 beta
Formulation	lyophilized from PBS
Reconstitution buffer	water

Reconstitution: Centrifuge the vial prior to opening. 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 5 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

Western Blot: To detect human 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 human IL-1 beta is 1.5 - 3.0 ng/lane, under either reducing or non-reducing conditions.

ELISA: To detect human IL-1 beta by sandwich ELISA (using 100 µl/well) a concentration of 0.5 - 2.0 µg/ml of this antibody is required. This antigen affinity purified antibody, in conjunction with the appropriate secondary reagents as a detection antibody, allows the detection of at least 2 - 4 ng/well of recombinant human IL-1 beta.

Neutralization: To yield one-half maximal inhibition [ND₅₀] of the biological activity of human IL-1 beta (5pg/ml), a concentration of 0.45-0.65 µg/ml of this antibody is required.

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