

Datasheet for ABIN103012 **anti-IL-1 beta antibody**



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Overview

Quantity:	1 mg
Target:	IL-1 beta (IL1B)
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This IL-1 beta antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunoprecipitation (IP), Flow Cytometry (FACS)

Product Details

Purpose:	IL-1 Beta Antibody
Immunogen:	Immunogen: This antibody was prepared by repeated immunizations with recombinant human IL-1 β produced in E.coli. The MW of the recombinant 153 aa IL-1 β was 17 kDa with the N-terminal amino acid at position alanine 117. This cleavage site is generated by the IL-1 β converting enzyme (ICE, capase-1). Immunogen Type: Recombinant Protein
Isotype:	IgG
Cross-Reactivity (Details):	This antibody is primarily directed against mature, 17,000 MW human IL-1 β and is useful in determining its presence in various assays.
Characteristics:	Synonyms: rabbit anti-IL-1 beta Antibody, rabbit anti-interleukin-1 beta antibody, IL-1 beta, Interleukin-1 beta, IL-1 β , catabolin

Product Details

Purification: This is an IgG preparation of whole rabbit serum purified by DEAE fractionation.

Sterility: Sterile filtered

Target Details

Target: IL-1 beta (IL1B)

Alternative Name: IL1B ([IL1B Products](#))

Background: Background: IL-1 beta (also known as Interleukin-1 beta, IL-1 β and catabolin) is produced by activated macrophages. IL-1 stimulates thymocyte proliferation by inducing IL-2 release, B-cell maturation and proliferation, and fibroblast growth factor activity. IL-1 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 β is a monomeric secreted protein that may be released by damaged cells or is secreted by a mechanism differing from that used for other secretory proteins.

Gene ID: 3553

UniProt: [P01584](#)

Pathways: [NF-kappaB Signaling](#), [Interferon-gamma Pathway](#), [TLR Signaling](#), [Negative Regulation of Hormone Secretion](#), [Cellular Response to Molecule of Bacterial Origin](#), [Carbohydrate Homeostasis](#), [Glycosaminoglycan Metabolic Process](#), [Myometrial Relaxation and Contraction](#), [Regulation of Leukocyte Mediated Immunity](#), [Positive Regulation of Immune Effector Process](#), [Autophagy](#), [Cancer Immune Checkpoints](#), [Inflammasome](#)

Application Details

Application Notes: Flow Cytometry Dilution: User Optimized
Immunohistochemistry Dilution: 1:100 - 1:200
Application Note: Anti-Human IL-1 β has been tested for use in ELISA, immunohistochemistry, immunoblotting. This antibody is suitable for neutralizations, radioimmunoassays, flow cytometry, and immunoprecipitation. It recognizes the 17,000 MW mature IL-1 β . For immunoblots, typically, IL-1 β is detected from supernatants or lysates of 2×10^6 endotoxin-stimulated peripheral blood mononuclear cells (PBMC). PBMC are stimulated for 24 hours with 1 % (v/v) serum plus 10 ng/mL E.coli LPS. For immunoprecipitation pre-clearing the preparation with a non-specific Rabbit IgG (p/n 011-001-297) to reduce background is suggested. For immunohistochemistry either paraffin fixation or cryofixation can be used for sample preparation to stain intracellular IL-1 β . For ELISA use HRP Conjugated Anti-Rabbit IgG [H&L]

Application Details

(Goat) (611-1302) for detection. In ELISA formats this antibody is best used as the second antibody in combination with a monoclonal antibody as a capture antibody. This antibody is also useful for neutralization of human and primate IL-1 β activity in bioassays. It does not neutralize the biological activity IL-1 α . It does not neutralize the biological activity of murine, rat or rabbit IL-1 β . For neutralization, it is recommended to incubate the sample with a dilution of the antibody for at least 4 hours before being tested. A control of similarly diluted normal rabbit IgG is recommended. This antibody can be used for FACS analysis. Caution should be exhibited as the F(c) domain of the rabbit IgG molecule may interact with cells non-specifically.

Neutralization Dilution: 1:100

Western Blot Dilution: 1:1,000

Immunoprecipitation Dilution: 1:400 - 1:800

ELISA Dilution: 1:500 - 1:2,000

Other: User Optimized

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 2.0 mg/mL

Buffer: Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Stabilizer: None

Preservative: None

Preservative: Without preservative

Storage: 4 °C, -20 °C

Storage Comment: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiry Date: 12 months

Publications

Product cited in: Pal, Daniels, Oskman, Diamond, Klein, Goldberg: "Plasmodium falciparum Histidine-Rich Protein II Compromises Brain Endothelial Barriers and May Promote Cerebral Malaria Pathogenesis." in:

Images

**Western Blotting**

Image 1. IL-1B was used at a 1:200 dilution incubated 1 h at room temperature to detect dog IL-1B by Western blot. Lane 1 and 2 were loaded with 2.5 μ g and 500 ng of dog IL-1B respectively. The molecular weight of the detected band is estimated by comparison to molecular weight markers (not shown). Detection occurred using a 1:3,000 dilution of IRDye™800 conjugated Donkey anti-Rabbit IgG (code # 611-732-127) for 1h at room temperature. LICOR's Odyssey® Infrared Imaging System was used to scan and process the image. Other detection systems will yield similar results.

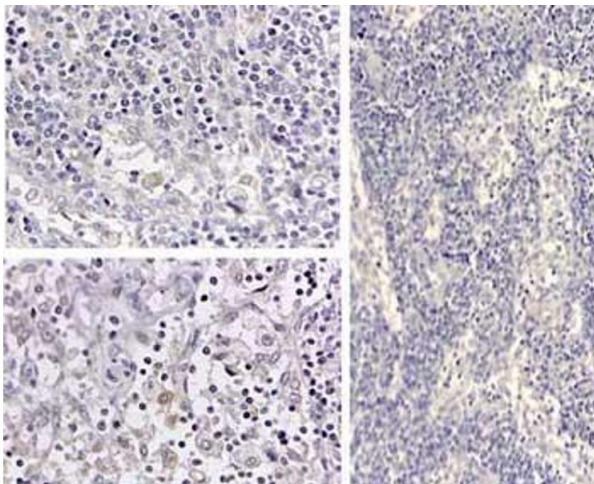
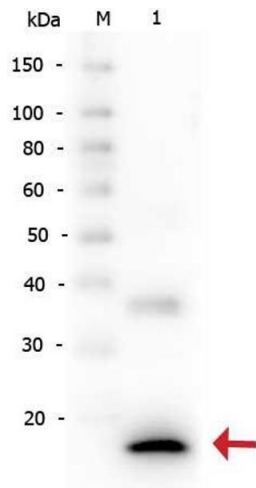
**Immunohistochemistry**

Image 2. Immunohistochemistry of HumanIL1beta_antibod
Tissue: medullary lymph node Fixation: formalin fixed paraffin embedded Antigen retrieval: user optimized Primary antibody: Human IL1beta antibody Secondary antibody: Peroxidase goat anti-rabbit at 1:10,000 for 45 min at RT Localization: cytoplasm Staining: Close up of medullary lymph node: positive staining in the cytoplasm of circulating macrophages. Neg Ctr (far right) normal rabbit IgG with pH 6.2 40X



Western Blotting

Image 3. Western Blot of Rabbit anti-Human IL-1 β antibody. Lane 1: Human IL-1 β . Load: 5 ng per lane. Primary antibody: Human IL-1 β antibody at 1:2,000 for overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:40,000 for 30 min at RT. Block: Blocking Buffer for Fluorescent Western Blotting (ABIN925618) for 30 min at RT. Predicted/Observed size: 17 kDa, 17 kDa for Human IL-1 β . Other band(s): Unspecific band at ~35 kDa.