

# Anti-IL-1 beta Antibody

Catalog # ABO10666

## **Specification**

# **Anti-IL-1 beta Antibody - Product Information**

Application WB
Primary Accession P01584
Host Rabbit
Reactivity Human
Clonality Polyclonal
Format Lyophilized

**Description** 

Rabbit IgG polyclonal antibody for Interleukin-1 beta(IL1B) detection. Tested with WB in Human.

### Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

## Anti-IL-1 beta Antibody - Additional Information

**Gene ID 3553** 

### **Other Names**

Interleukin-1 beta, IL-1 beta, Catabolin, IL1B, IL1F2

# **Calculated MW**

30748 MW KDa

### **Application Details**

Western blot, 0.1-0.5 μg/ml, Human, Rat, Mouse<br>

### **Subcellular Localization**

Secreted. The lack of a specific hydrophobic segment in the precursor sequence suggests that IL-1 is released by damaged cells or is secreted by a mechanism differing from that used for other secretory proteins.

### **Protein Name**

Interleukin-1 beta(IL-1 beta)

### **Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

## **Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human IL-1 beta(249-269aa FLGGTKGGQDITDFTMQFVSS).

#### **Purification**

Immunogen affinity purified.

### **Cross Reactivity**



No cross reactivity with other proteins

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

**Sequence Similarities** Belongs to the IL-1 family.

## Anti-IL-1 beta Antibody - Protein Information

Name IL1B (HGNC:5992)

Synonyms IL1F2

#### **Function**

Potent pro-inflammatory cytokine (PubMed: <a href="http://www.uniprot.org/citations/10653850" target=" blank">10653850</a>, PubMed:<a href="http://www.uniprot.org/citations/12794819" target="blank">12794819</a>, PubMed:<a href="http://www.uniprot.org/citations/28331908" target="\_blank">28331908</a>, PubMed:<a href="http://www.uniprot.org/citations/3920526" target=" blank">3920526</a>). Initially discovered as the major endogenous pyrogen, induces prostaglandin synthesis, neutrophil influx and activation, T-cell activation and cytokine production, B-cell activation and antibody production, and fibroblast proliferation and collagen production (PubMed:<a href="http://www.uniprot.org/citations/3920526" target=" blank">3920526</a>). Promotes Th17 differentiation of T-cells. Synergizes with IL12/interleukin-12 to induce IFNG synthesis from T-helper 1 (Th1) cells (PubMed:<a href="http://www.uniprot.org/citations/10653850" target=" blank">10653850</a>). Plays a role in angiogenesis by inducing VEGF production synergistically with TNF and IL6 (PubMed:<a href="http://www.uniprot.org/citations/12794819" target=" blank">12794819</a>). Involved in transduction of inflammation downstream of pyroptosis: its mature form is specifically released in the extracellular milieu by passing through the gasdermin-D (GSDMD) pore (PubMed:<a href="http://www.uniprot.org/citations/33377178" target=" blank">33377178</a>, PubMed:<a href="http://www.uniprot.org/citations/33883744" target="\_blank">33883744</a>). Acts as a

sensor of S.pyogenes infection in skin: cleaved and activated by pyogenes SpeB protease, leading

(PubMed:<a href="http://www.uniprot.org/citations/28331908" target=" blank">28331908</a>).

to an inflammatory response that prevents bacterial growth during invasive skin infection

### **Cellular Location**

Cytoplasm, cytosol. Secreted. Lysosome Secreted, extracellular exosome {ECO:0000250|UniProtKB:P10749} Note=The precursor is cytosolic (PubMed:15192144). In response to inflammasome-activating signals, such as ATP for NLRP3 inflammasome or bacterial flagellin for NLRC4 inflammasome, cleaved and secreted (PubMed:24201029, PubMed:33377178, PubMed:33883744). Mature form is secreted and released in the extracellular milieu by passing through the gasdermin-D (GSDMD) pore (PubMed:33883744). In contrast, the precursor form is not released, due to the presence of an acidic region that is proteolytically removed by CASP1 during maturation (PubMed:33883744). The secretion is dependent on protein unfolding and facilitated by the cargo receptor TMED10 (PubMed:32272059)

## **Tissue Location**

Expressed in activated monocytes/macrophages (at protein level).

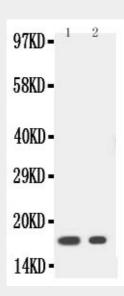
## **Anti-IL-1 beta Antibody - Protocols**



Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# Anti-IL-1 beta Antibody - Images



Anti-IL-1 beta antibody, ABO10666, Western blottingLane 1: Recombinant Human IL-1 beta Protein 20ngLane 2: Recombinant Human IL-1 beta Protein 10ng

### Anti-IL-1 beta Antibody - Background

Interleukin-1 beta(IL-1beta) also know as catabolin, is a cytokine protein that in humans is encoded by the IL1B gene, which localizes to the long arm of chromosome 2 at position 2q13-2q21 between two fragile sites. Interleukin 1(IL-1) is a protein with several biological activities regulating host defense and immune responses. The human IL-1 family plays an important role in the pathogenesis of many diseases and functions as a key mediator of the host response to various infectious, inflammatory, and immunologic challenges.