

**Anti-IL-1 beta Antibody**  
Catalog # ABO10666**Specification**

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

Application	<b>WB</b>
Primary Accession	<a href="#">P01584</a>
Host	<b>Rabbit</b>
Reactivity	<b>Human</b>
Clonality	<b>Polyclonal</b>
Format	<b>Lyophilized</b>

**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 Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**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:[10653850](http://www.uniprot.org/citations/10653850), PubMed:[12794819](http://www.uniprot.org/citations/12794819), PubMed:[28331908](http://www.uniprot.org/citations/28331908), PubMed:[3920526](http://www.uniprot.org/citations/3920526)). 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:[3920526](http://www.uniprot.org/citations/3920526)). Promotes Th17 differentiation of T-cells. Synergizes with IL12/interleukin-12 to induce IFNG synthesis from T-helper 1 (Th1) cells (PubMed:[10653850](http://www.uniprot.org/citations/10653850)). Plays a role in angiogenesis by inducing VEGF production synergistically with TNF and IL6 (PubMed:[12794819](http://www.uniprot.org/citations/12794819)). 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:[33377178](http://www.uniprot.org/citations/33377178), PubMed:[33883744](http://www.uniprot.org/citations/33883744)). Acts as a sensor of *S.pyogenes* infection in skin: cleaved and activated by pyogenes SpeB protease, leading to an inflammatory response that prevents bacterial growth during invasive skin infection (PubMed:[28331908](http://www.uniprot.org/citations/28331908)).

#### 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](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

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



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

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

Interleukin-1 beta (IL-1beta) also known 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.