

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

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:3920526, PubMed:10653850, PubMed:12794819, PubMed:28331908). 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). Promotes Th17 differentiation of T-cells. Synergizes with IL12/interleukin-12 to induce IFNG synthesis from T-helper 1 (Th1) cells (PubMed:10653850). Plays a role in angiogenesis by inducing VEGF production synergistically with TNF and IL6 (PubMed: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, PubMed: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).

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.