

Anti-IL-1 beta Picoband Antibody
Catalog # ABO12801

Specification

Anti-IL-1 beta Picoband Antibody - Product Information

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

Description

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

Reconstitution

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

Anti-IL-1 beta Picoband 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, Mouse, Rat

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.

Tissue Specificity

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

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃N.

Immunogen

E. coli-derived human IL-1 beta recombinant protein (Position: A117-S269). Human IL-1 beta shares 78.3% and 77.6% amino acid (aa) sequence identity with mouse and rat IL-1 beta, respectively.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins.

Storage

At -20°C for one year. After reconstitution, 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.

Anti-IL-1 beta Picoband 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 Picoband 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 Picoband Antibody - Images

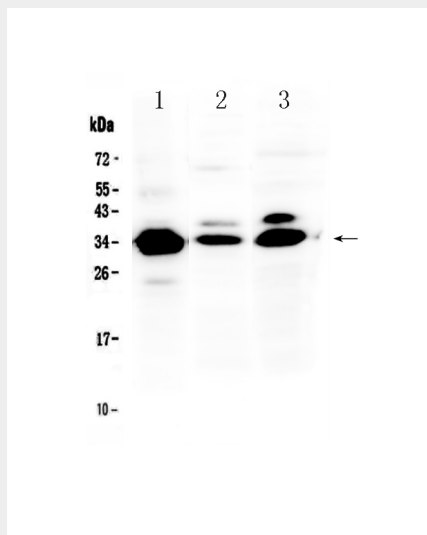


Figure 1. Western blot analysis of IL-1 beta using anti-IL-1 beta antibody (ABO12801).