

## IL-1β Polyclonal Antibody

**Catalog # AP70505** 

## **Specification**

# IL-1β Polyclonal Antibody - Product Information

Application WB, IHC-P Primary Accession P01584

Reactivity Human, Mouse, Rat

Host Rabbit Clonality Polyclonal

# IL-1β Polyclonal Antibody - Additional Information

**Gene ID 3553** 

#### **Other Names**

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

#### **Dilution**

WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/5000. Not yet tested in other applications.

IHC-P $\sim$ N/A

#### **Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

### **Storage Conditions**

-20°C

### IL-1β Polyclonal 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 to an inflammatory response that prevents bacterial growth during invasive skin infection (PubMed:<a href="http://www.uniprot.org/citations/28331908" target="\_blank">28331908</a>).

### **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**

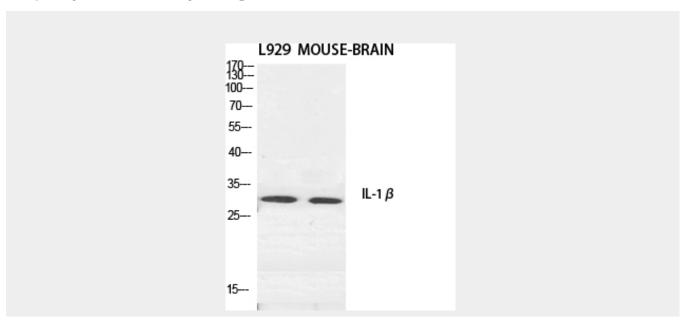
Expressed in activated monocytes/macrophages (at protein level).

## IL-1β Polyclonal Antibody - Protocols

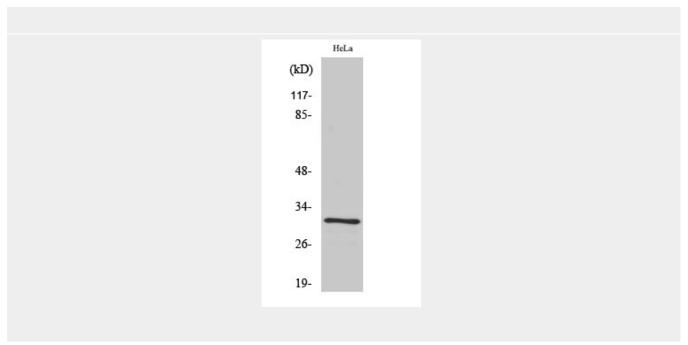
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# IL-1β Polyclonal Antibody - Images







IL-1 $\beta$  Polyclonal Antibody - Background

Potent proinflammatory cytokine. 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. Promotes Th17 differentiation of T-cells. Synergizes with IL12/interleukin-12 to induce IFNG synthesis from T-helper 1 (Th1) cells (PubMed:10653850).