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# Goat Anti-IL-1 beta Antibody (internal region)

**Purified Goat Polyclonal Antibody**
**Catalog # AF4170a**

## Specification

### Goat Anti-IL-1 beta Antibody (internal region) - Product Information

| | |
|---|---|
| Application | **WB** |
| Primary Accession | P01584 |
| Other Accession | NP_000567.1 |
| Reactivity | **Human** |
| Predicted | **Human** |
| Host | **Goat** |
| Clonality | **Polyclonal** |
| Concentration | **0.5** |
| Calculated MW | **30748** |

### Goat Anti-IL-1 beta Antibody (internal region) - Additional Information

**Gene ID** 3553

**Other Names**
IL1B; interleukin 1, beta; IL-1; IL1-BETA; IL1F2; IL-1 beta; catabolin; interleukin-1 beta; preinterleukin 1 beta; pro-interleukin-1-beta

**Format**
Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.

**Immunogen**
Peptide with sequence C-QLESVDPKNYPKK, from the internal region of the protein sequence according to NP_000567.1.

**Storage**
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**
Goat Anti-IL-1 beta Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

### Goat Anti-IL-1 beta Antibody (internal region) - Protein Information

**Name** IL1B (HGNC:5992)

**Synonyms** IL1F2

**Function**

Potent pro-inflammatory cytokine (PubMed:<a href="http://www.uniprot.org/citations/3920526" target="_blank">3920526</a>, 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>). 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).

## Goat Anti-IL-1 beta Antibody (internal region) - 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

## Goat Anti-IL-1 beta Antibody (internal region) - Images

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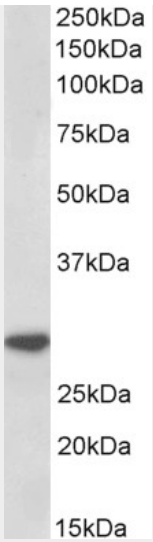


AF4170a (1 µg/ml) staining of Human Peripheral Blood Lymphocytes lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

**Goat Anti-IL-1 beta Antibody (internal region) - References**

NLRC4 inflammasome-mediated production of IL-1β modulates mucosal immunity in the lung against gram-negative bacterial infection. Cai S, Batra S, Wakamatsu N, Pacher P, Jeyaseelan S. Journal of immunology (Baltimore, Md. : 1950) 2012 Jun 188 (11): 5623-35.