10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

IL-1 beta Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10845

Specification

IL-1 beta Antibody - Product Information

Application	**WB**
Primary Accession	P01584
Other Accession	EAW73607
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**30748**

IL-1 beta Antibody - Additional Information

Gene ID 3553

Application & Usage	**Western blot analysis (0.5-4 µg/ml). However, the optimal conditions should be determined individually. Recombinant human IL-1β can be used as a positive control.**

Other Names
IL-1 beta, IL1 beta, IL 1 beta, Interluekin-1 beta, Interluekin 1 beta, interluekin

Target/Specificity
IL-1b

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µg (0.5 mg/ml) affinity purified rabbit anti-human IL-1β polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, 0.01% thimerosal.

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions

IL-1 beta Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

IL-1 beta Antibody - Protein Information

Name IL1B (HGNC:5992)

Synonyms IL1F2

Function
Potent pro-inflammatory cytokine (PubMed:10653850, PubMed:12794819, PubMed:28331908, PubMed: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). 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).

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

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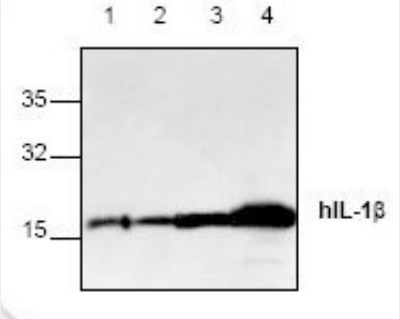
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

IL-1 beta Antibody - Images



Western blot analysis with recombinant human IL-1. Lane 1: 10 ng; Lane 2: 50 ng; Lane 3: 250 ng; Lane 4: 1µg.

IL-1 beta Antibody - Background

IL-1β is a potent immuno-modulator that mediates a wide range of immune and inflammatory responses including the activation of B and T cells. Human IL-1β is a 17.0 kDa protein containing 153 amino acid residues.