

IL-1B Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP51281

Product Information

Application	WB, IHC-P
Primary Accession	P01584
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	30748

Additional Information

Gene ID	3553
Other Names	Interleukin-1 beta, IL-1 beta, Catabolin, IL1B, IL1F2
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human IL-1 beta. The exact sequence is proprietary.
Dilution	WB~~1:1000 IHC-P~~N/A
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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).

Background

Produced by activated macrophages, IL-1 stimulates thymocyte proliferation by inducing IL-2 release, B-cell maturation and proliferation, and fibroblast growth factor activity. IL-1 proteins are involved in the inflammatory response, being identified as endogenous pyrogens, and are reported to stimulate the release of prostaglandin and collagenase from synovial cells.

References

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