

IL-1 β Polyclonal Antibody

Catalog # AP70505

Product Information

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

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~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20°C

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 IFN γ 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 <i>S.pyogenes</i> 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)

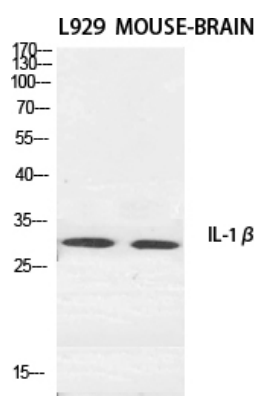
Tissue Location

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

Background

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](#)).

Images



Western Blot analysis of various cells using IL-1 β Polyclonal Antibody diluted at 1 : 1000



Western Blot analysis of HeLa cells using IL-1 β Polyclonal Antibody diluted at 1 : 1000

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