

# IL1 beta Antibody

Rabbit mAb

Catalog # AP90321

## Product Information

<b>Application</b>	WB
<b>Primary Accession</b>	<a href="#">P01584</a>
<b>Reactivity</b>	Human
<b>Clonality</b>	Monoclonal
<b>Other Names</b>	Catabolin; H1; Hematopoietin 1; IFN beta inducing factor; IL 1; IL 1 beta; IL 1B; IL-1 beta; IL1 BETA; IL1B; IL1B; IL1F2; Interleukin 1 beta; Interleukin 1 beta precursor; Interleukin-1 beta; LAF; OAF;
<b>Isotype</b>	Rabbit IgG
<b>Host</b>	Rabbit
<b>Calculated MW</b>	30748

## Additional Information

<b>Dilution</b>	WB 1:500~1:2000
<b>Purification</b>	Affinity-chromatography
<b>Immunogen</b>	A synthesized peptide derived from human IL1 beta
<b>Description</b>	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.
<b>Storage Condition and Buffer</b>	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

## Protein Information

<b>Name</b>	IL1B ( <a href="#">HGNC:5992</a> )
<b>Synonyms</b>	IL1F2
<b>Function</b>	Potent pro-inflammatory cytokine (PubMed: <a href="#">10653850</a> , PubMed: <a href="#">12794819</a> , PubMed: <a href="#">28331908</a> , PubMed: <a href="#">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="#">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="#">10653850</a> ). Plays a role in angiogenesis by inducing VEGF production synergistically with TNF and IL6 (PubMed: <a href="#">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:[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

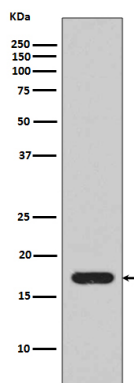
Cytoplasm, cytosol. Secreted. Lysosome Secreted, extracellular exosome {ECO:0000250|UniProtKB:P10749} Note=The precursor is cytosolic (PubMed:15192144). In response to inflammasome-activating signals, such as ATP for NLRP3 inflammasome or bacterial flagellin for NLRC4 inflammasome, cleaved and secreted (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).

## Images

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Western blot analysis of extracts from recombinant IL1 beta, using IL1 beta antibody.

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