

# Anti-IL-1b Reference Antibody (canakinumab)

Recombinant Antibody  
Catalog # APR10141

## Product Information

Application	FC, Kinetics, Animal Model
Primary Accession	<a href="#">P01584</a>
Reactivity	Human, Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	30748

## Additional Information

Target/Specificity	IL-1b
Endotoxin Conjugation	Unconjugated
Expression system	CHO Cell
Format	Purified monoclonal antibody supplied in PBS, pH6.0, without preservative. This antibody is purified through a protein A column.

## Protein Information

Name	IL1B ( <a href="#">HGNC:5992</a> )
Synonyms	IL1F2
Function	<p>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:<a href="#">33377178</a>, PubMed:<a href="#">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="#">28331908</a>).</p> <p>Cytoplasm, cytosol. Secreted. Lysosome Secreted, extracellular exosome</p>

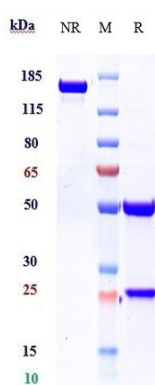
## Cellular Location

{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)

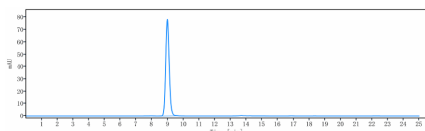
## Tissue Location

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

## Images



Anti-IL-1b Reference Antibody (canakinumab) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%



The purity of Anti-IL-1b Reference Antibody (canakinumab) is more than 100% ,determined by SEC-HPLC.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.