

**Anti-IL-1b Reference Antibody (canakinumab)  
Recombinant Antibody  
Catalog # APR10141****Specification**

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**Anti-IL-1b Reference Antibody (canakinumab) - Product Information**

Application	FC, Kinetics, Animal Model
Primary Accession	<a href="#">P01584</a>
Reactivity	Human, Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	145 KDa

**Anti-IL-1b Reference Antibody (canakinumab) - Additional Information****Target/Specificity**  
IL-1b**Endotoxin**  
< 0.001EU/ µg,determined by LAL method.**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.**Anti-IL-1b Reference Antibody (canakinumab) - Protein Information****Name** IL1B ([HGNC:5992](#))**Synonyms** IL1F2**Function**  
Potent pro-inflammatory cytokine (PubMed:<a href="http://www.uniprot.org/citations/10653850" target="\_blank">10653850</a>, PubMed:<a href="http://www.uniprot.org/citations/12794819" target="\_blank">12794819</a>, PubMed:<a href="http://www.uniprot.org/citations/28331908" target="\_blank">28331908</a>, PubMed:<a href="http://www.uniprot.org/citations/3920526" target="\_blank">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="http://www.uniprot.org/citations/3920526" target="\_blank">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

[10653850](http://www.uniprot.org/citations/10653850)). Plays a role in angiogenesis by inducing VEGF production synergistically with TNF and IL6 (PubMed:[12794819](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/33377178), PubMed:[33883744](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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**

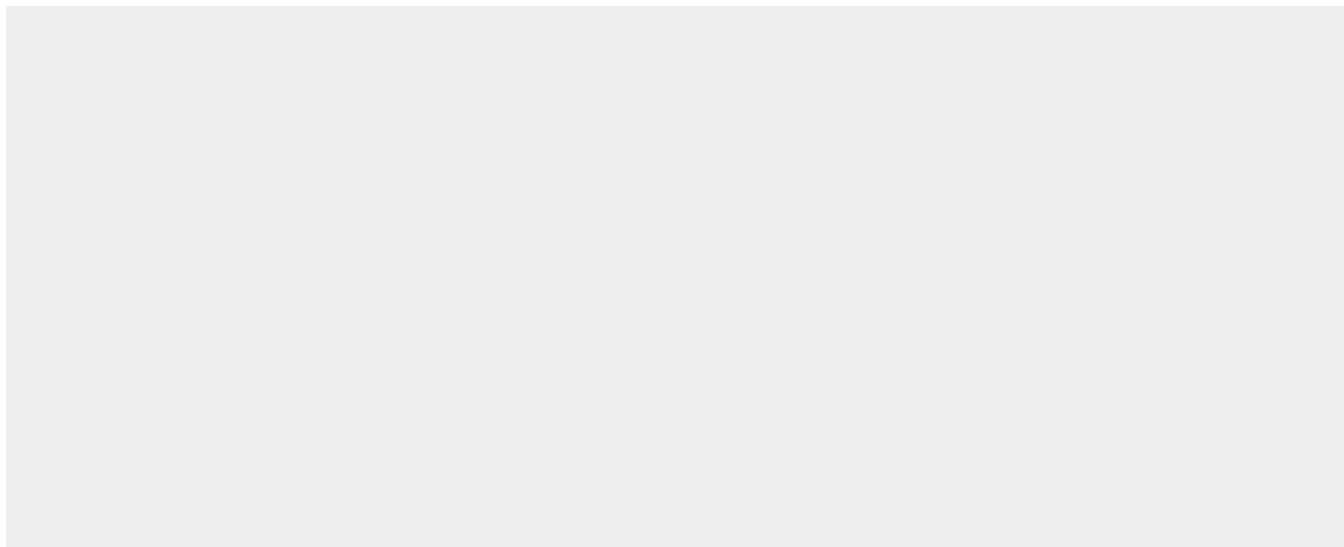
Expressed in activated monocytes/macrophages (at protein level).

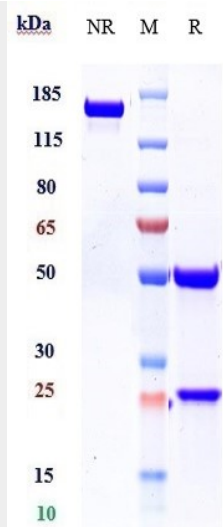
#### **Anti-IL-1b Reference Antibody (canakinumab) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

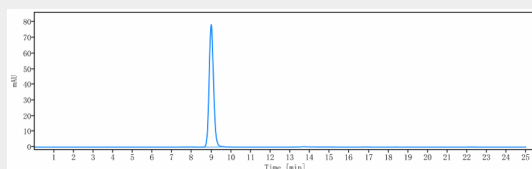
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

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