

IL1B Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP8531c**Specification**

IL1B Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [P01584](#)**IL1B Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 3553**Other Names**

Interleukin-1 beta, IL-1 beta, Catabolin, IL1B, IL1F2

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP8531c](/products/AP8531c) was selected from the Center region of human IL1B. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

IL1B Antibody (Center) Blocking Peptide - Protein Information**Name** IL1B ([HGNC:5992](#))**Synonyms** IL1F2**Function**

Potent pro-inflammatory cytokine (PubMed: [3920526](http://www.uniprot.org/citations/3920526), PubMed: [10653850](http://www.uniprot.org/citations/10653850), PubMed: [12794819](http://www.uniprot.org/citations/12794819), PubMed: [28331908](http://www.uniprot.org/citations/28331908)). 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](http://www.uniprot.org/citations/3920526)). Promotes Th17 differentiation of T-cells. Synergizes with IL12/interleukin-12 to induce IFNG synthesis from T-helper 1 (Th1) cells (PubMed: [3920526](#)).

[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).

IL1B Antibody (Center) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

IL1B Antibody (Center) Blocking Peptide - Images

IL1B Antibody (Center) Blocking Peptide - Background

IL1B is a member of the interleukin 1 cytokine family. This cytokine is produced by activated macrophages as a proprotein, which is proteolytically processed to its active form by caspase 1 (CASP1/ICE). This cytokine is an important mediator of the inflammatory response, and is involved in a variety of cellular activities, including cell proliferation, differentiation, and apoptosis. The induction of cyclooxygenase-2 (PTGS2/COX2) by this cytokine in the central nervous system (CNS) is found to contribute to inflammatory pain hypersensitivity.

IL1B Antibody (Center) Blocking Peptide - References

Yu,J., et.al., Am. J. Gastroenterol. (2009) Ito,A., et.al., J. Biol. Chem. 271 (25), 14657-14660 (1996)