

## **IL10 Antibody (Center) Blocking Peptide**

Synthetic peptide Catalog # BP9112c

### **Specification**

IL10 Antibody (Center) Blocking Peptide - Product Information

Primary Accession <u>P22301</u>

IL10 Antibody (Center) Blocking Peptide - Additional Information

**Gene ID 3586** 

#### **Other Names**

Interleukin-10, IL-10, Cytokine synthesis inhibitory factor, CSIF, IL10

### **Target/Specificity**

The synthetic peptide sequence used to generate the antibody <a href=/products/AP9112c>AP9112c</a> was selected from the Center region of human IL10. 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.

IL10 Antibody (Center) Blocking Peptide - Protein

Name IL10

**Function** 

# IL10 Antibody (Center) Blocking Peptide - Background

The protein is a cytokine produced primarily by monocytes and to a lesser extent by lymphocytes. This cytokine has pleiotropic effects in immunoregulation and inflammation. It down-regulates the expression of Th1 cytokines, MHC class II Ags, and costimulatory molecules on macrophages. It also enhances B cell survival, proliferation, and antibody production. This cytokine can block NF-kappa B activity, and is involved in the regulation of the JAK-STAT signaling pathway. Knockout studies in mice suggested the function of this cytokine as an essential immunoregulator in the intestinal tract.

## IL10 Antibody (Center) Blocking Peptide - References

Trajkov,D., et.al., Indian J Tuberc 56 (3), 117-131 (2009)Kim,J.M., et.al., J. Immunol. 148 (11), 3618-3623 (1992)



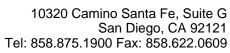
Major immune regulatory cytokine that acts on many cells of the immune system where it has profound anti-inflammatory functions, limiting excessive tissue disruption caused by inflammation. Mechanistically, IL10 binds to its heterotetrameric receptor comprising IL10RA and IL10RB leading to JAK1 and STAT2-mediated phosphorylation of STAT3 (PubMed:<a href="http://www.uniprot.org/c itations/16982608" target=" blank">16982608</a>). In turn, STAT3 translocates to the nucleus where it drives expression of anti-inflammatory mediators (PubMed:<a href="http://www.un iprot.org/citations/18025162" target=" blank">18025162</a>). Targets antigen-presenting cells (APCs) such as macrophages and monocytes and inhibits their release of pro- inflammatory cytokines including granulocyte-macrophage colonystimulating factor /GM-CSF, granulocyte colony-stimulating factor/G- CSF, IL-1 alpha, IL-1 beta, IL-6, IL-8 and TNF-alpha (PubMed:<a href="http://www.uniprot.org/c itations/1940799" target=" blank">1940799</a>, PubMed:<a href="http://www.uniprot.org/ci tations/7512027" target=" blank">7512027</a>, PubMed:<a href="http://www.uniprot.org/ci tations/11564774" target=" blank">11564774</a>). Interferes also with antigen presentation by reducing the expression of MHC-class II and co- stimulatory molecules, thereby inhibiting their ability to induce T cell activation (PubMed:<a href="http://www.un iprot.org/citations/8144879" target="\_blank">8144879</a>). In addition, controls the inflammatory response of macrophages by reprogramming essential metabolic pathways including mTOR signaling (By similarity).

## **Cellular Location** Secreted.

#### **Tissue Location**

Produced by a variety of cell lines, including T- cells, macrophages, mast cells and other cell types

## IL10 Antibody (Center) Blocking Peptide - Protocols





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

• Blocking Peptides