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IL10 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP9112c

Specification

IL10 Antibody (Center) Blocking Peptide - Product Information

Primary Accession P22301

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 AP9112c 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 Information

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:16982608). In turn, STAT3 translocates to the nucleus where it drives expression of anti-inflammatory mediators (PubMed:18025162). Targets antigen-presenting cells (APCs) such as macrophages and monocytes and inhibits their release of pro- inflammatory cytokines including granulocyte-macrophage colony-stimulating factor /GM-CSF, granulocyte colony-stimulating factor/G- CSF, IL-1 alpha, IL-1 beta, IL-6, IL-8 and TNF-alpha (PubMed:1940799, PubMed:7512027, PubMed:11564774). 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:8144879). 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

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

- Blocking Peptides