

IL12A Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP8796b**Specification**

IL12A Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [P29459](#)**IL12A Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 3592**Other Names**

Interleukin-12 subunit alpha, IL-12A, Cytotoxic lymphocyte maturation factor 35 kDa subunit, CLMF p35, IL-12 subunit p35, NK cell stimulatory factor chain 1, NKSF1, IL12A, NKSF1

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP8796b](/products/AP8796b) was selected from the C-term region of human IL12A. 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.

IL12A Antibody (C-term) Blocking Peptide - Protein Information**Name** IL12A**Synonyms** NKSF1**Function**

Heterodimerizes with IL12B to form the IL-12 cytokine or with EBI3/IL27B to form the IL-35 cytokine (PubMed: [8605935](http://www.uniprot.org/citations/8605935), PubMed: [8943050](http://www.uniprot.org/citations/8943050)). IL-12 is primarily produced by professional antigen-presenting cells (APCs) such as B-cells and dendritic cells (DCs) as well as macrophages and granulocytes and regulates T-cell and natural killer-cell responses, induces the production of interferon-gamma (IFN-gamma), favors the differentiation of T-helper 1 (Th1) cells and is an important link between innate resistance and adaptive immunity (PubMed: [1673147](http://www.uniprot.org/citations/1673147), PubMed: [1673147](#)).

href="http://www.uniprot.org/citations/1674604" target="_blank">1674604, PubMed:8605935). Mechanistically, exerts its biological effects through a receptor composed of IL12R1 and IL12R2 subunits (PubMed:8943050). Binding to the receptor results in the rapid tyrosine phosphorylation of a number of cellular substrates including the JAK family kinases TYK2 and JAK2 (PubMed:7528775). In turn, recruited STAT4 gets phosphorylated and translocates to the nucleus where it regulates cytokine/growth factor responsive genes (PubMed:7638186). As part of IL-35, plays essential roles in maintaining the immune homeostasis of the liver microenvironment and also functions as an immune-suppressive cytokine (By similarity). Mediates biological events through unconventional receptors composed of IL12RB2 and gp130/IL6ST heterodimers or homodimers (PubMed:22306691). Signaling requires the transcription factors STAT1 and STAT4, which form a unique heterodimer that binds to distinct DNA sites (PubMed:22306691).

Cellular Location

Secreted

IL12A Antibody (C-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

IL12A Antibody (C-term) Blocking Peptide - Images

IL12A Antibody (C-term) Blocking Peptide - Background

IL12A is a subunit of a cytokine that acts on T and natural killer cells, and has a broad array of biological activities. The cytokine is a disulfide-linked heterodimer composed of the 35-kD subunit encoded by this gene, and a 40-kD subunit that is a member of the cytokine receptor family. This cytokine is required for the T-cell-independent induction of interferon (IFN)-gamma, and is important for the differentiation of both Th1 and Th2 cells. The responses of lymphocytes to this cytokine are mediated by the activator of transcription protein STAT4. Nitric oxide synthase 2A (NOS2A/NOS2) is found to be required for the signaling process of this cytokine in innate immunity.

IL12A Antibody (C-term) Blocking Peptide - References

D'Andrea,A., et.al., J. Exp. Med. 176 (5), 1387-1398 (1992)