

IL12A Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8796b

Specification

IL12A Antibody (C-term) - Product Information

Application	WB, IHC-P, FC,E
Primary Accession	P29459
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	24874
Antigen Region	168-195

IL12A Antibody (C-term) - 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

This IL12A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 168-195 amino acids from the C-terminal region of human IL12A.

Dilution

WB~~1:1000
IHC-P~~1:10~50
FC~~1:10~50

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

IL12A Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

IL12A Antibody (C-term) - Protein Information

Name IL12A

Synonyms NKSF1

Function Heterodimerizes with IL12B to form the IL-12 cytokine or with EB13/IL27B to form the IL-35 cytokine (PubMed:[8605935](#), PubMed:[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](#), PubMed:[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 functions also 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

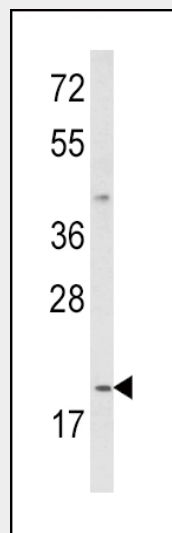
Secreted

IL12A Antibody (C-term) - Protocols

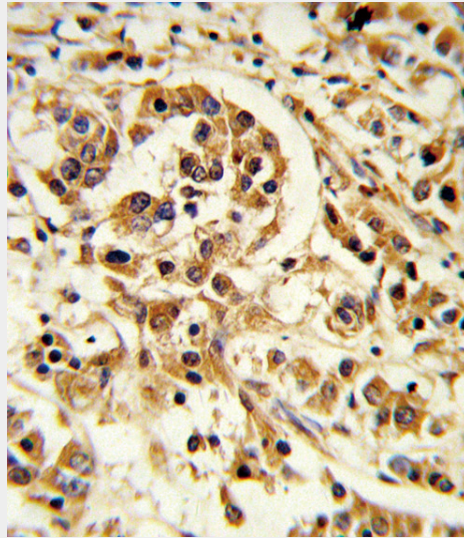
Provided below are standard protocols that you may find useful for product applications.

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

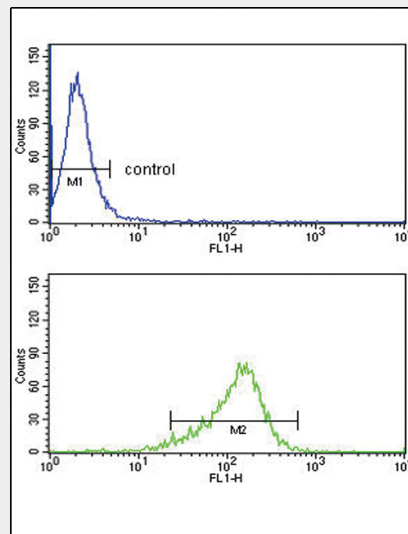
IL12A Antibody (C-term) - Images



Western blot analysis of IL12A Antibody (C-term) (Cat. #AP8796b) in MDA-MB231 cell line lysates (35ug/lane). IL12A (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human breast carcinoma reacted with IL12A Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



IL12A Antibody (C-term) (Cat.#AP8796b) flow cytometry analysis of MDA-MB231 cells (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

IL12A Antibody (C-term) - 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) - References

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