Product Name: IL-12B p40 Rabbit Polyclonal Antibody
Catalog #: APRab12494

Summary

Production Name	IL-12B p40 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ELISA
Reactivity	Human,Rat,Mouse

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	IL12B NKSF2
Alternative Names	Interleukin-12 subunit beta (IL-12B;Cytotoxic lymphocyte maturation factor 40 kDa subunit;CLMF p40;IL-12 subunit p40;NK cell stimulatory factor chain 2;NKSF2)
Gene ID	3593.0
SwissProt ID	P29460.Synthetic peptide from human protein at AA range: 241-290

Application

Dilution Ratio	WB 1:500-2000,IHC-p 1:500-200, ELISA 1:10000-20000.
Molecular Weight	40kD

Background

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This gene encodes a subunit of interleukin 12, a cytokine that acts on T and natural killer cells, and has a broad array of biological activities. Interleukin 12 is a disulfide-linked heterodimer composed of the 40 kD cytokine receptor like subunit encoded by this gene, and a 35 kD subunit encoded by IL12A. This cytokine is expressed by activated macrophages that serve as an essential inducer of Th1 cells development. This cytokine has been found to be important for sustaining a sufficient number of memory/effector Th1 cells to mediate long-term protection to an intracellular pathogen. Overexpression of this gene was observed in the central nervous system of patients with multiple sclerosis (MS), suggesting a role of this cytokine in the pathogenesis of the disease. The promoter polymorphism of this gene has been reported to be associated with the severity of atopic and non-atopic asthma in children. [providisease:Defects in IL12B are a cause of mendelian susceptibility to mycobacterial disease (MSMD) [MIM:209950]; also known as familial disseminated atypical mycobacterial infection. This rare condition confers predisposition to illness caused by moderately virulent mycobacterial species, such as Bacillus Calmette-Guerin (BCG) vaccine and environmental non-tuberculous mycobacteria, and by the more virulent Mycobacterium tuberculosis. Other microorganisms rarely cause severe clinical disease in individuals with susceptibility to mycobacterial infections, with the exception of Salmonella which infects less than 50% of these individuals. The pathogenic mechanism underlying MSMD is the impairment of interferon-gamma mediated immunity, whose severity determines the clinical outcome. Some patients die of overwhelming mycobacterial disease with lepromatous-like lesions in early childhood, whereas others develop, later in life, disseminated but curable infections with tuberculoid granulomas. MSMD is a genetically heterogeneous disease with autosomal recessive, autosomal dominant or X-linked inheritance.,function:Associates with IL23A to form the IL-23 interleukin, an heterodimeric cytokine which functions in innate and adaptive immunity. IL-23 may constitute with IL-17 an acute response to infection in peripheral tissues. IL-23 binds to an heterodimeric receptor complex composed of IL12RB1 and IL23R, activates the Jak-Stat signaling cascade, stimulates memory rather than naive T-cells and promotes production of proinflammatory cytokines. IL-23 induces autoimmune inflammation and thus may be responsible for autoimmune inflammatory diseases and may be important for tumorigenesis.,function:Cytokine that can act as a growth factor for activated T and NK cells, enhance the lytic activity of NK/lymphokine-activated killer cells, and stimulate the production of IFN-gamma by resting PBMC.,online information:IL12B mutation db,PTM:Known to be C-mannosylated in the recombinant protein; it is not yet known for sure if the wild-type protein is also modified.,similarity:Belongs to the type I cytokine receptor family. Type 3 subfamily.,similarity:Contains 1 fibronectin type-III domain.,similarity:Contains 1 Ig-like C2-type (immunoglobulin-like) domain.,subunit:Heterodimer with IL12A; disulfide-linked. The heterodimer is known as interleukin IL-12. Heterodimer with IL23A; disulfide-linked. The heterodimer is known as interleukin IL-23. Also secreted as a monomer.,

Research Area

Cytokine-cytokine receptor interaction;Toll_Like;RIG-I-like receptor;Jak_STAT;Type I diabetes mellitus;Allograft rejection;

Image Data

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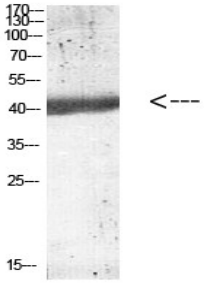
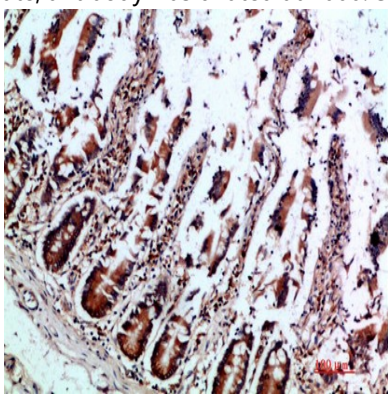
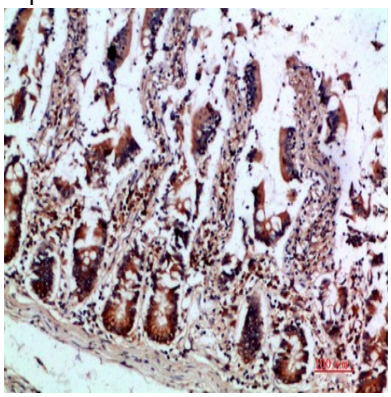


Western blot analysis of mouse-kidney lysate, antibody was diluted at 1000. Secondary antibody was diluted at 1:20000



Immunohistochemical analysis of paraffin-embedded human-colon, antibody was diluted at 1:200



Immunohistochemical analysis of paraffin-embedded human-colon, antibody was diluted at 1:200

Note

For research use only.