SunLong Biotech Co.,LTD
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Rabbit Anti-IL-4 antibody

SL0581R

Product Name	IL-4
Chinese Name	白介素 4 抗体
Alias	Interleukin-4; IL4; IL 4; B cell growth factor 1; B cell IgG differentiation factor; B Cell Stimulatory Factor 1; BCGF 1; BCGF1; Binetrakin; BSF 1; BSF1; HCGF; Hodgkin's Cell Growth Factor; IA Inducing Factor; IGG1 induction factor; Il4e12; Interleukin 4; Interleukin 4, isoform 1; Interleukin4; Lymphocyte stimulatory factor 1; Macrophage fusion factor; Mast cell growth factor 2; MCGF2; MFF; MGC79402; Pitrakinra; T cell growth factor 2; TCGF2; IL4_MOUSE; B-cell stimulatory factor 1; BSF-1.
Research Area	Cell biology immunology
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Mouse
Applications	WB=1:500-2000 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	14kDa
Cellular localization	Secretory protein
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from mouse IL-4: 181-147/147
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 ℃ for one year. Avoid repeated freeze/thaw cycles.

Attention

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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Product Detail

The protein encoded by this gene is a pleiotropic cytokine produced by activated T cells. This cytokine is a ligand for interleukin 4 receptor. The interleukin 4 receptor also binds to IL13, which may contribute to many overlapping functions of this cytokine and IL13. STAT6, a signal transducer and activator of transcription, has been shown to play a central role in mediating the immune regulatory signal of this cytokine. This gene, IL3, IL5, IL13, and CSF2 form a cytokine gene cluster on chromosome 5q, with this gene particularly close to IL13. This gene, IL13 and IL5 are found to be regulated coordinately by several long-range regulatory elements in an over 120 kilobase range on the chromosome. IL4 is considered an important cytokine for tissue repair, counterbalancing the effects of proinflammatory type 1 cytokines, however, it also promotes allergic airway inflammation. Moreover, IL-4, a type 2 cytokine, mediates and regulates a variety of human host responses such as allergic, anti-parasitic, wound healing, and acute inflammation. This cytokine has been reported to promote resolution of neutrophil-mediated acute lung injury. In an allergic response, IL-4 has an essential role in the production of allergen-specific immunoglobin (Ig) E. This pro-inflammatory cytokine has been observed to be increased in COVID-19 (Coronavirus disease 2019) patients, but is not necessarily associated with severe COVID-19 pathology. Two alternatively spliced transcript variants of this gene encoding distinct isoforms have been reported. [provided by RefSeq, Aug 2020]

Function:
Participates in at least several B-cell activation processes as well as of other cell types. It is a costimulator of DNA-synthesis. It induces the expression of class II MHC molecules on resting B-cells. It enhances both secretion and cell surface expression of IgE and IgG1. It also regulates the expression of the low affinity Fc receptor for IgE (CD23) on both lymphocytes and monocytes.

Subcellular Location:
Secreted.

DISEASE:
Genetic variations in IL4 may be a cause of susceptibility to ischemic stroke (ISCHSTR) [MIM:601367]; also known as cerebrovascular accident or cerebral infarction. A stroke is an acute neurologic event leading to death of neural tissue of the brain and resulting in loss of motor, sensory and/or cognitive function. Ischemic strokes, resulting from vascular occlusion, is considered to be a highly complex disease consisting of a group of heterogeneous disorders with multiple genetic and environmental risk factors.

Similarity:
Belongs to the IL-4/IL-13 family.

SWISS:
P07750

Gene ID:
16189

Database links:

Entrez Gene: 3565 Human

Entrez Gene: 16189 Mouse

Omim: 147780 Human

SwissProt: P05112 Human

SwissProt: P07750 Mouse

Unigene: 73917 Human

Unigene: 276360 Mouse

白介素-4 仅限于活化 T 细胞，肥大细胞和嗜碱性白细胞。
IL-4 对各种 lymphocyte，单核—巨噬细胞，甚至纤维母细胞和 epithelial cells 都有促生长和分化的作用。

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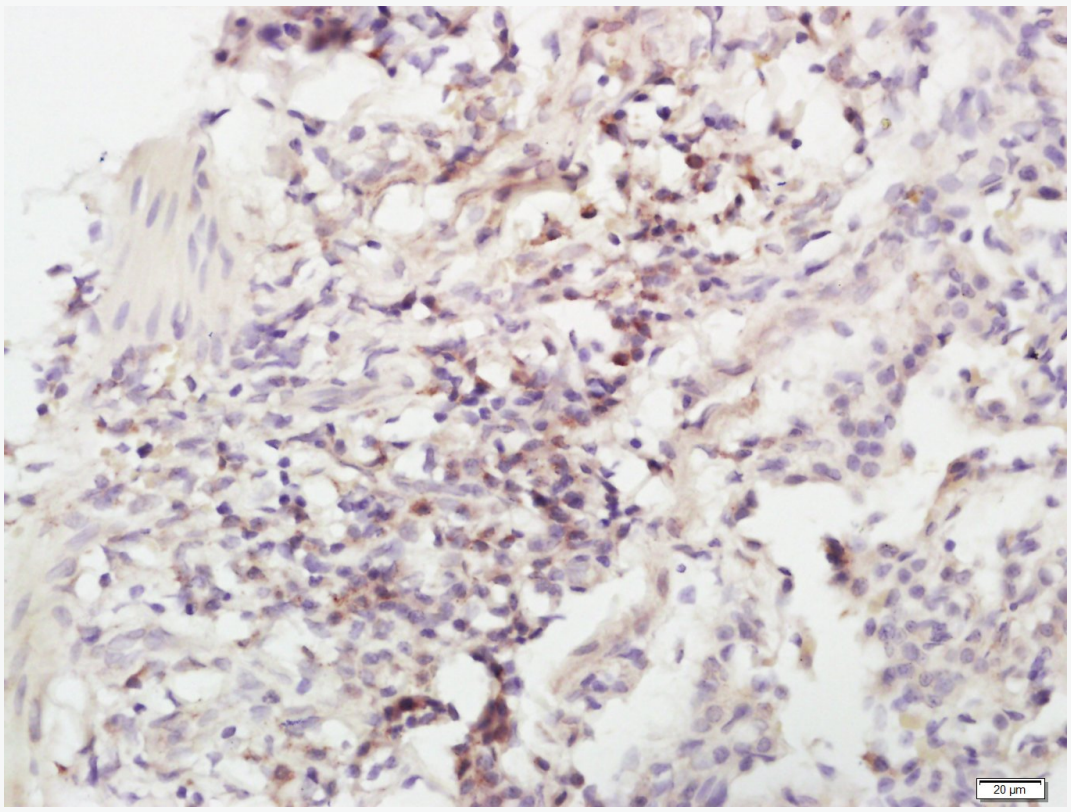
Product Picture



Paraformaldehyde-fixed, paraffin embedded (rat lung tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (IL-4) Polyclonal Antibody, Unconjugated (SL0581R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.

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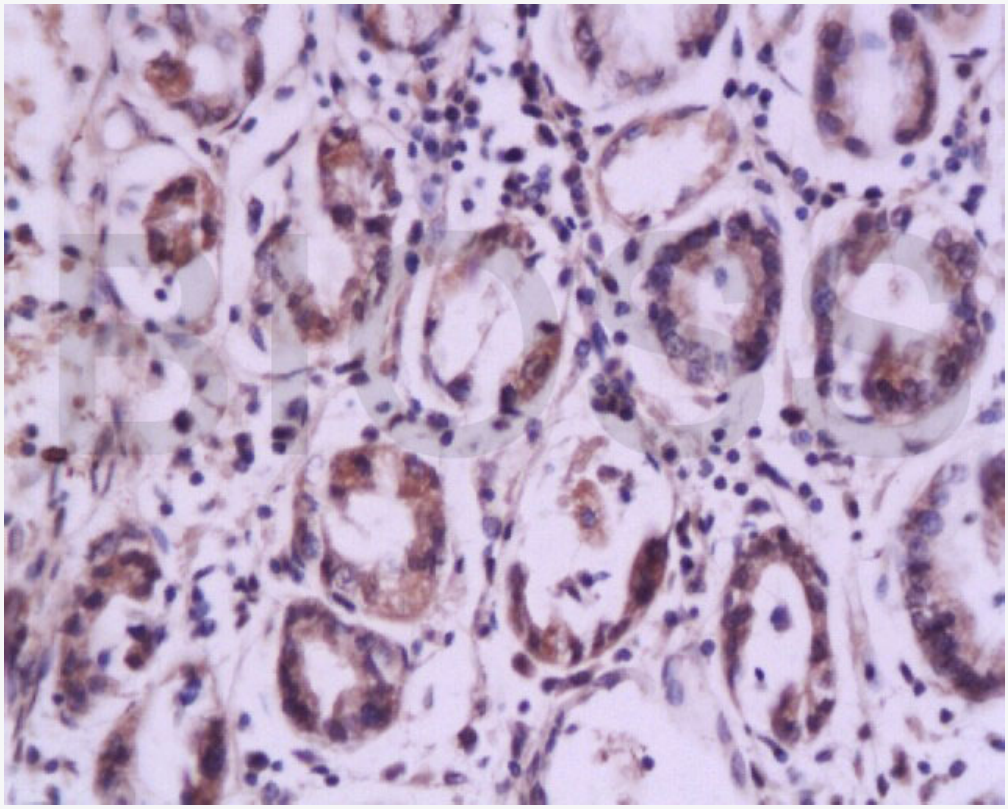

Tissue/cell: human esophageal carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-IL-4 Polyclonal Antibody, Unconjugated(SL0581R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining