Il-4 Blocking Peptide – >85% Purity

PRODUCT OVERVIEW

Product Name	IL-4 (IL4), Blocking Peptide
Full Product Name	IL-4 Blocking Peptide
Product Gene Name	IL4 blocking peptide
Product Synonym Names	Interleukin-4; IL-4; B-cell stimulatory factor 1; BSF-1; Binetrakin; Lymphocyte stimulatory factor 1; Pitrakinra
Host	Synthetic
Species Reactivity	Human, Monkey
Form/Format	Lyophilized powder
Purity/Purification	>85%
Preparation and Storage	Shipped at 4 degree C. Store at -20 degree C for one year.
Antibody/Peptide Pairs	IL-4 peptide (MBS822774) is used for blocking the activity of IL-4 antibody (MBS820625)
Molecular Weight	15,797 Da
OMIM	gene 601367
Quality Control	The quality of the peptide was evaluated by reversed-phase HPLC and by mass spectrometry.
Applications Tested/Suitable for IL4 blocking peptide	Blocking (BL)
Application Notes for IL4 blocking peptide	Blocking Peptide to the diluted primary antibody in a molar ratio of 10:1 (peptide to antibody) and incubate the mixture at 4 degree C for overnight or at room temperature for 2 hours.
Related Product Information for IL4 blocking peptide	MBS822774 is a blocking peptide targeting IL4. Also known as IL-4 Blocking Peptide. Reactive in Human, Monkey. Host: Synthetic. The peptide is used to block Anti-IL-4 Antibody reactivity.
Other Notes	Small volumes of IL4 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for IL4. It may not necessarily be applicable to this product.

NCBI GI #	4504669
NCBI GeneID	3565
NCBI Accession #	NP_000580.1
UniProt Primary Accession #	P05112
UniProt Secondary Accession #	Q14630; Q6NZ77
UniProt Related Accession #	P05112
GenBank Nucleotide #	NM_000589.3
NCBI Official Full Name	interleukin-4 isoform 1
NCBI Official Synonym Full Names	interleukin 4

NCBI Official Symbol	IL4
NCBI Official Synonym Symbols	BSF1; IL-4; BCGF1; BSF-1; BCGF-1
UniProt Protein Name	Interleukin-4
UniProt Synonym Protein Names	B-cell stimulatory factor 1; BSF-1; Binetrakin; Lymphocyte stimulatory factor 1; Pitrakinra
Protein Family	Interleukin
UniProt Gene Name	IL4
UniProt Synonym Gene Names	IL-4; BSF-1
UniProt Entry Name	IL4_HUMAN
NCBI Protein Information	interleukin-4; binetrakin; pitrakinra; B cell growth factor 1; interleukin 4 variant 2; B_cell stimulatory factor 1; lymphocyte stimulatory factor 1
NCBI Summary for IL4	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. Two alternatively spliced transcript variants of this gene encoding distinct isoforms have been reported. [provided by RefSeq, Jul 2008]
UniProt Comments for IL4	IL4: 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. Genetic variations in IL4 may be a cause of susceptibility to ischemic stroke (ISCHSTR); 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. Belongs to the IL-4/IL-13 family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Secreted; Cell cycle regulation; Secreted, signal peptide; Cytokine; Motility/polarity/chemotaxis Chromosomal Location of Human Ortholog: 5q31.1 Cellular Component: extracellular space; external side of plasma membrane Molecular Function: protein binding; growth factor activity; cytokine activity; interleukin-4 receptor binding Biological Process: regulation of isotype switching; negative regulation of osteoclast differentiation; positive regulation of isotype switching to IgG isotypes; positive regulation of transcription, DNA-dependent; microglial cell activation; regulation of proton transport; female pregnancy; positive regulation of activated T cell proliferation; chemotaxis; response to organic cyclic substance; positive regulation of isotype switching to IgE isotypes; positive regulation of interleukin-10 production; B cell costimulation; positive regulation of MHC class II biosynthetic process; connective tissue growth factor biosynthetic process; positive regulation of B cell proliferation; positive regulation of T cell proliferation; positive regulation of interleukin-13 production; negative regulation of macrophage activation; response to nutrient; response to drug; cholesterol metabolic process; negative regulation of chronic inflammatory response; regulation of immune response; T-helper 2 type immune response; regulation of phosphorylation; B cell activation; negative regulation of nitric oxide biosynthetic process; negative regulation of acute inflammatory response; defense response to protozoan; T-helper 1 cell lineage commitment; positive regulation of chemokine biosynthetic process; response to ethanol; positive regulation of T cell differentiation; positive regulation of tyrosine phosphorylation of Stat5 protein; innate immune response in mucosa; retina development in camera-type eye; B cell differentiation; response to cytokine stimulus; cellular defense response; immune response; positive regulation of transcription factor activity; positive regulation of transcription from RNA polymerase II promoter; T-helper 2 cell differentiation; positive regulation of defense response to virus by host; negative regulation of transcription, DNA-dependent; negative regulation of apoptosis Disease: Stroke, Ischemic

Research Articles on IL4	**1.** IL-4 gene P1P1 genotype was associated with Familial Mediterranean fever
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