Bioactive

IL12B (Human) Recombinant Protein

Catalog # P3629 Size 10 ug

Specification

Product Description	Human IL12B (P29460, 23 a.a. - 529 a.a.) partial recombinant protein expressed in CHO cells.
Sequence	IWELKKDVYVVELDWYPDAPGEMVVLTCDTPEEDGITWTLDQSSEVLGSGKTLTIQVKEFGDAG QYTCHKGGEVLSHSLLLLHKKEDGIWSTDILKDQKEPKNKTFLRCEAKNYSGRFTCWWLTTISTDL TFSVKSSRGSSDPQGVTCGAATLSAERVRGDNKEYEYSVECQEDSACPAAEESLPIEVMVDAV HKLKYENYTSSFFIRDIIKPDPPKNLQLKPLKNSRQVEVSWEYPDTWSTPHSYFSLTFCVQVQGKS KREKKDRVFTDKTSATVICRKNASISVRAQDRYYSSSWSEWASVPCSRNLPVATPDPGMFPCLH HSQNLLRAVSNMLQKARQTLEFYPCTSEEIDHEDITKDKTSTVEACLPLELTKNESCLNSRETSFIT NGSCLASRKTSFMMALCLSSIYEDLKMYQVEFKTMNAKLLMDPKRQIFLDQNMLAVIDELMQALN FNSETVPQKSSLEEPDFYKTKIKLCILLHAFRIRAVTIDRVMSYLNAS
Host	Mammals
Theoretical MW (kDa)	75
Form	Lyophilized
Preparation Method	Mammalian cell (CHO) expression system
Purification	Ion exchange column and HPLC reverse phase column
Purity	> 90% by SDS-PAGE and HPLC
Endotoxin Level	< 0.1 ng/ug (1 EU/ug)
Activity	The ED_{50} was determined by the dose-dependent proliferation of activated human T lymphoblasts. c ells was found to be in the range of 0.1-0.2 ng/mL.
Storage Buffer	Lyophilized from PBS, pH 7.5
Storage Instruction	Store at -20°C on dry atmosphere for 2 years. After reconstitution with deionized water, store at 4°C for 1 month or store at -20°C for 6 months. Aliquot to avoid repeated freezing and thawing.

Applications

- Functional Study
- SDS-PAGE

Gene Info — IL12B

Entrez GeneID	3593
Protein Accession#	P29460
Gene Name	IL12B
Gene Alias	CLMF, CLMF2, IL-12B, NKSF, NKSF2
Gene Description	interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40)
Omim ID	161561 177900 209950 600807
Gene Ontology	Hyperlink
Gene Summary	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. [provided by RefSeq
Other Designations	IL12, subunit p40|OTTHUMP00000160820|cytotoxic lymphocyte maturation factor 2, p40|interleukin 12, p40|interleukin 12B|interleukin-12 beta chain|natural killer cell stimulatory factor, 40 kD subunit|natural killer cell stimulatory factor-2

Pathway

- Allograft rejection
- Cytokine-cytokine receptor interaction
- Jak-STAT signaling pathway

- Toll-like receptor signaling pathway
- Type I diabetes mellitus

Disease

- Abscess
- Acquired Immunodeficiency Syndrome
- Acute Disease
- Adenocarcinoma
- Aggressive Periodontitis
- AIDS Dementia Complex
- Alcoholism
- Anemia
- Arthritis
- Asthma
- Atherosclerosis
- Autoimmune Diseases
- Barrett Esophagus
- Behcet Syndrome
- Brain Neoplasms
- Bronchial Hyperreactivity
- Bronchiolitis
- Cadaver
- Carcinoma
- Cardiovascular Diseases
- Celiac Disease
- Chagas Cardiomyopathy

- Chorioamnionitis
- Chronic Periodontitis
- Colitis
- Colorectal Neoplasms
- Coronary Artery Disease
- Crohn Disease
- Cytomegalovirus Infections
- Dermatitis
- Diabetes Mellitus
- Disease Progression
- Disease Susceptibility
- Diseases in Twins
- Edema
- Esophageal Neoplasms
- Esophagitis
- Fetal Membranes
- Genetic Predisposition to Disease
- Giant Cell Arteritis
- Glioma
- Graves Disease
- Graves Ophthalmopathy
- Helicobacter Infections
- Hematologic Diseases
- Hepatitis B
- Hepatitis C
- Hernia

- HIV Infections
- Hodgkin Disease
- Hyperglycemia
- Hypersensitivity
- Hypertension
- Immune System Diseases
- Infant
- Infection
- Inflammation
- Inflammatory Bowel Diseases
- Kidney Diseases
- Kidney Failure
- Leprosy
- Leptospirosis
- Liver Cirrhosis
- Lung Neoplasms
- Lupus Erythematosus
- Lupus Nephritis
- Lymphadenitis
- Lymphatic Metastasis
- Lymphocytosis
- Lymphoma
- Lymphoproliferative Disorders
- Malaria
- Multiple Myeloma
- Multiple Sclerosis

- Myasthenia Gravis
- Mycobacterium Infections
- Myocardial Infarction
- Neoplasm Invasiveness
- Obstetric Labor
- Occupational Diseases
- Osteolysis
- Pain
- Papillomavirus Infections
- Parasitemia
- Paratyphoid Fever
- Peptic Ulcer
- Peptic Ulcer Hemorrhage
- Periodontitis
- Polymyalgia Rheumatica
- Postoperative Complications
- Pre-Eclampsia
- Premature Birth
- Prosthesis Failure
- Psoriasis
- Pulmonary Disease
- Radiation Injuries
- Radiation Pneumonitis
- Rectal Fistula
- Respiratory Hypersensitivity
- Respiratory Syncytial Virus Infections

- Respiratory Tract Infections
- Rhinitis
- Rubella
- Sarcoidosis
- Schizophrenia
- Sepsis
- Severe Acute Respiratory Syndrome
- Silicosis
- Stomach Neoplasms
- Streptococcal Infections
- Stroke
- Subacute Sclerosing Panencephalitis
- Substance Abuse
- Syndrome
- Thoracic Neoplasms
- Thyroiditis
- Tuberculosis
- Typhoid Fever
- Urinary Bladder Neoplasms
- Uterine Cervical Neoplasms
- Waldenstrom Macroglobulinemia
- Werner syndrome