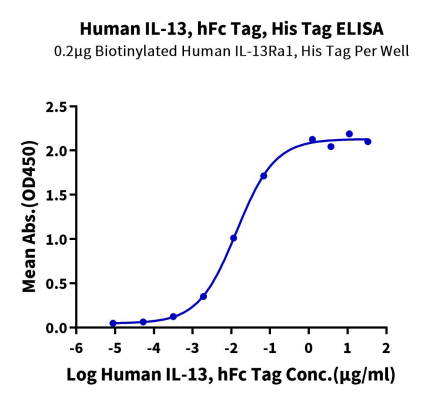
Bioactive HuPro®

IL13 (Human) Recombinant Protein

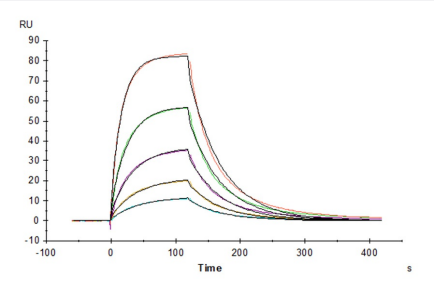
Catalog # P9903 Size 100 ug

Applications



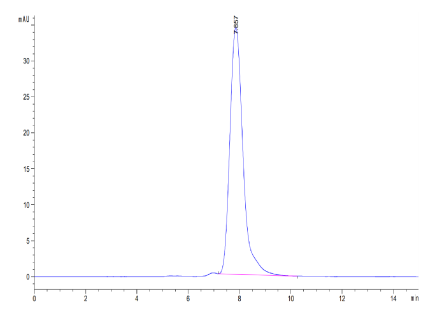
Enzyme-linked Immunoabsorbent Assay

Immobilized Biotinylated Human IL-13Ra1, His Tag at 2 ug/mL (100 uL/well) on the streptavidin precoated plate (5 ug/mL). Dose response curve for Human IL-13, hFc Tag with the EC50 of 15.8 ng/mL determined by ELISA.



Surface Plasmon Resonance

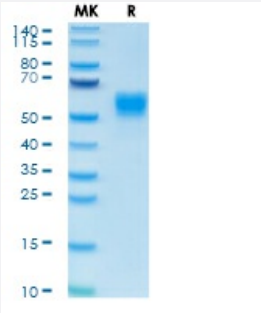
Human IL-13, hFc Tag captured on CM5 Chip via Protein A can bind Human IL-13Ra1, His Tag with an affinity constant of 0.399 uM as determined in SPR assay (Biacore T200).



SEC-HPLC

The purity of-Human IL-13 is greater than 95% as determined by SEC-HPLC.

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Tris-Bis PAGE

Human IL-13 on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

Specification

Product Description	Human IL13 (AAK53823, Gly21-Asn132) partial recombinant protein with hFc tag at N-Terminus expressed in HEK293 cells.
Sequence	Gly21-Asn132
Host	Human
Theoretical MW (kDa)	39.6
Form	Lyophilized
Preparation Method	Mammalian cell (HEK293) expression system
Purity	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin Level	< 1 EU per 1 ug of protein (determined by LAL method)
Activity	The EC_{50} was 15.8 ng/mL, messured by ELISA at 2 ug/mL. The affinity constant of 0.399 uM as determined in SPR assay (Biacore T200).
Quality Control Testing	SEC-HPLC and Tris-Bis PAGE SEC-HPLC The purity of-Human IL-13 is greater than 95% as determined by SEC-HPLC. Tris-Bis PAGE Human IL-13 on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.
Recommend Usage	Biological Activity ELISA SDS-PAGE SPR The optimal working dilution should be determined by the end user.
Storage Buffer	Lyophilized from sterile distilled Water is > 100 ug/mL
Storage Instruction	Store at 2°C to 8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Result of bioactivity analysis

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Applications

- Functional Study
- Enzyme-linked Immunoabsorbent Assay

  Immobilized Biotinylated Human IL-13Ra1, His Tag at 2 ug/mL (100 uL/well) on the streptavidin precoated plate (5 ug/mL). Dose response curve for Human IL-13, hFc Tag with the EC50 of 15.8 ng/mL determined by ELISA.
- SDS-PAGE
- Surface Plasmon Resonance

  Human IL-13, hFc Tag captured on CM5 Chip via Protein A can bind Human IL-13Ra1, His Tag with an affinity constant of 0.399 uM as determined in SPR assay (Biacore T200).

Gene Info — IL13

Entrez GeneID	3596
Protein Accession#	AAK53823
Gene Name	IL13
Gene Alias	ALRH, BHR1, IL-13, MGC116786, MGC116788, MGC116789, P600
Gene Description	interleukin 13
Omim ID	147683 600807 607154
Gene Ontology	Hyperlink
Gene Summary	This gene encodes an immunoregulatory cytokine produced primarily by activated Th2 cells. This cytokine is involved in several stages of B-cell maturation and differentiation. It up-regulates CD23 and MHC class II expression, and promotes IgE isotype switching of B cells. This cytokine down-regulates macrophage activity, thereby inhibits the production of pro-inflammatory cytokines and chemokines. This cytokine is found to be critical to the pathogenesis of allergen-induced asthma but operates through mechanisms independent of IgE and eosinophils. This gene, IL3, IL5, IL4, and CSF2 form a cytokine gene cluster on chromosome 5q, with this gene particularly close to IL4. [provided by RefSeq
Other Designations	-

Pathway

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- Asthma
- Cytokine-cytokine receptor interaction
- Fc epsilon RI signaling pathway
- Jak-STAT signaling pathway

Disease

- Acquired Immunodeficiency Syndrome
- Adenocarcinoma
- Aggressive Periodontitis
- Arthritis
- Asthma
- Atherosclerosis
- Biliary Tract Neoplasms
- Brain Ischemia
- Brain Neoplasms
- Breast cancer
- Breast Neoplasms
- Bronchial Hyperreactivity
- Bronchiolitis
- Calcinosis
- Carcinoma
- Cardiovascular Diseases
- Cataract
- Celiac Disease
- Central Nervous System Neoplasms
- Chlamydia Infections

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- Chronic Periodontitis
- Colitis
- Conjunctivitis
- Connective Tissue Diseases
- Coronary Artery Disease
- Coronary Disease
- Dermatitis
- Diabetes Mellitus
- Disease Progression
- Disease Susceptibility
- Drug Hypersensitivity
- Eczema
- Edema
- Egg Hypersensitivity
- Eosinophilia
- Epidermal Necrolysis
- Erythema Nodosum
- Esophageal Neoplasms
- Esophagitis
- Eye Diseases
- Fetal Diseases
- Fibrosis
- Food Hypersensitivity
- Gastritis
- Genetic Predisposition to Disease
- Gingival Hemorrhage

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- Glioblastoma
- Glioma
- Glomerulonephritis
- Graves Disease
- Helicobacter Infections
- Hematologic Diseases
- HIV Infections
- Hodgkin Disease
- Hypersensitivity
- Hypertension
- Infant
- Infection
- Inflammation
- Inflammatory Bowel Diseases
- Kidney Failure
- Latex Hypersensitivity
- Liver Cirrhosis
- Lung Neoplasms
- Lupus Erythematosus
- Lymphoma
- Lymphoproliferative Disorders
- Malaria
- Mastocytosis
- Migraine Disorders
- Multiple Myeloma

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- Multiple Sclerosis
- Musculoskeletal Diseases
- Neoplasms
- Nephrosis
- Nephrotic Syndrome
- Obesity
- Occupational Diseases
- Onchocerciasis
- Osteoarthritis
- Osteoporosis
- Pain
- Parasitemia
- Pemphigoid
- Peptic Ulcer
- Periodontal Attachment Loss
- Periodontal Pocket
- Periodontitis
- Pre-Eclampsia
- Pregnancy Complications
- Premature Birth
- Prenatal Exposure Delayed Effects
- Prostatic Neoplasms
- Psoriasis
- Puerperal Disorders
- Pulmonary Disease
- Radiation Injuries

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- Radiation Pneumonitis
- Recurrence
- Respiratory Hypersensitivity
- Respiratory Sounds
- Respiratory Syncytial Virus Infections
- Rhinitis
- Sarcoidosis
- Sarcoma
- Schistosomiasis japonica
- Schistosomiasis mansoni
- Scleroderma
- Sepsis
- Skin Diseases
- Stevens-Johnson Syndrome
- Streptococcal Infections
- Stroke
- Trachoma
- Tuberculosis
- Urinary Bladder Neoplasms
- Vaginosis
- Waldenstrom Macroglobulinemia
- Werner syndrome

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