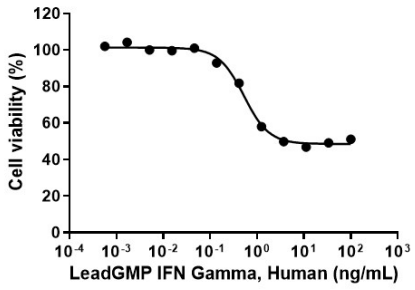
Bioactive | CellTx™ | GMP Grade

IFNG (Human) Recombinant Protein

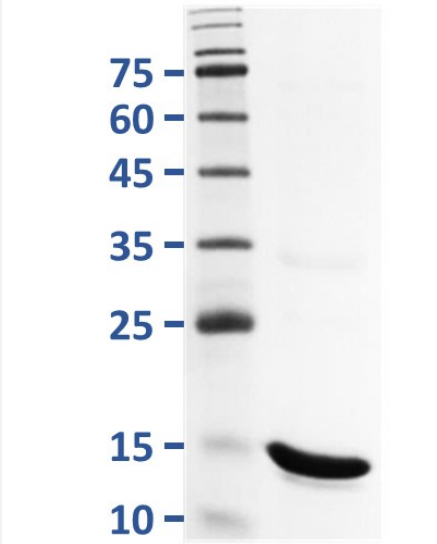
Catalog # P7003 Size 100 ug

Applications



Functional Study

The ED_{50} for this effect is <1 ng/mL, measured by the induction of cytotoxicity in HT29 cells.



Specification

Product Description	Human IFNG recombinant protein with polyhistidine tag at the C-terminus expressed in *Escherichia coli*.

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Host	Escherichia coli
Theoretical MW (kDa)	Calculated MW: 17.7
Form	Lyophilized
Preparation Method	*Escherichia coli* expression system
Purification	Ni-NTA chromatography
Purity	> 97% by SDS-PAGE
Endotoxin Level	< 0.05 EU/ug
Activity	The ED_{50} for this effect is < 1 ng/mL, measured by the induction of cytotoxicity in HT29 cells. The specific activity of recombinant human IFN gamma is approximately > 1 x 10^7 IU/mg, which is calibrated against the human IFN Gamma WHO Reference Material (NIBSC code: 87/586).
Quality Control Testing	SDS-PAGE Stained with Coomassie Blue
Recommend Usage	SDS-PAGE The optimal working dilution should be determined by the end user.
Regulatory Status	GMP grade
Storage Buffer	Lyophilized from PBS, pH 8.0. Reconstitute the lyophilized protein in sterile H_2O to a concentration of at least 0.5 mg/mL and incubate the stock solution for at least 20 min to ensure sufficient redissolution. Please use the protein within one month after reconstitution.
Storage Instruction	Store at -20°C for 12 months in lyophilized state. After reconstitution with deionized water, store at -20 or -80°C for 1 month. Aliquot to avoid repeated freezing and thawing.

Applications

- Functional Study

  The ED_{50} for this effect is <1 ng/mL, measured by the induction of cytotoxicity in HT29 cells.

- SDS-PAGE

Gene Info — IFNG

Entrez GeneID	3458

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Gene Name	IFNG
Gene Alias	IFG, IFI
Gene Description	interferon, gamma
Omim ID	147570 191100 607948 609135 609423
Gene Ontology	Hyperlink
Gene Summary	Interferon-gamma (IFNG), or type II interferon, is a cytokine critical for innate and adaptive immunity against viral and intracellular bacterial infections and for tumor control. Aberrant IFNG expression is associated with a number of autoinflammatory and autoimmune diseases. The importance of IFNG in the immune system stems in part from its ability to inhibit viral replication directly, but most importantly derives from its immunostimulatory and immunomodulatory effects. IFNG is produced predominantly by natural killer (NK) and natural killer T (NKT) cells as part of the innate immune response, and by CD4 (MIM 186940) and CD8 (see MIM 186910) cytotoxic T lymphocyte (CTL) effector T cells once antigen-specific immunity develops (Schoenborn and Wilson, 2007 [PubMed 17981204]).[supplied by OMIM
Other Designations	-

Pathway

- Allograft rejection
- Cytokine-cytokine receptor interaction
- Graft-versus-host disease
- Jak-STAT signaling pathway
- Natural killer cell mediated cytotoxicity
- Proteasome
- Regulation of autophagy
- Systemic lupus erythematosus
- T cell receptor signaling pathway
- TGF-beta signaling pathway
- Type I diabetes mellitus

Disease

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- Abortion
- Abscess
- Acquired Immunodeficiency Syndrome
- Acute Disease
- Adenocarcinoma
- Aggressive Periodontitis
- Alcoholism
- Alphavirus Infections
- Alveolitis
- Alzheimer disease
- Anemia
- Angina Pectoris
- Angiomyolipoma
- Arteriosclerosis
- Arthritis
- Asthma
- Atherosclerosis
- Autoimmune Diseases
- Bacterial Infections
- Behcet Syndrome
- Biliary Atresia
- Bipolar Disorder
- Bone Marrow Diseases
- Boutonneuse Fever
- Brain Ischemia
- Breast cancer

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- Breast Neoplasms
- Bronchial Hyperreactivity
- Bronchiectasis
- Bronchiolitis
- Bronchiolitis Obliterans
- Bronchopulmonary Dysplasia
- Brucellosis
- Cachexia
- Calcinosis
- Campylobacter Infections
- Carcinoma
- Cardiovascular Diseases
- Carotid Artery Diseases
- Carotid Stenosis
- Celiac Disease
- Cervical Intraepithelial Neoplasia
- Chagas Cardiomyopathy
- Chagas Disease
- Chlamydia Infections
- Chronic Disease
- Clonorchiasis
- Colitis
- Colorectal Neoplasms
- Common Cold
- Common Variable Immunodeficiency
- Communicable Diseases

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- Condylomata Acuminata
- Connective Tissue Diseases
- Coronary Artery Disease
- Coronary Disease
- Coronary Restenosis
- Coronary Stenosis
- Critical Illness
- Crohn Disease
- Cytomegalovirus Infections
- Depressive Disorder
- Dermatitis
- Dermatomyositis
- Diabetes
- Diabetes Complications
- Diabetes Mellitus
- Diabetic Neuropathies
- Disease Progression
- Disease Susceptibility
- Down Syndrome
- Drug Hypersensitivity
- Ductus Arteriosus
- Edema
- Embryo Loss
- Endometriosis
- Endotoxemia
- Enterobacteriaceae Infections

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- Enterocolitis
- Epstein-Barr Virus Infections
- Esophageal Neoplasms
- Esophagitis
- Fatigue Syndrome
- Fetal Diseases
- Fetal Membranes
- Fibrosis
- Fractures
- Gastritis
- Genetic Predisposition to Disease
- Gingival Hemorrhage
- Glomerulonephritis
- Glucosephosphate Dehydrogenase Deficiency
- Graft vs Host Disease
- Graves Disease
- Graves Ophthalmopathy
- Hashimoto Disease
- Heart Diseases
- Helicobacter Infections
- Hematologic Diseases
- Hematologic Neoplasms
- Hepatitis B
- Hepatitis C
- Hepatitis E
- Histiocytosis

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- HIV Infections
- Hodgkin Disease
- Hyperglycemia
- Hyperlipidemias
- Hypersensitivity
- Hypertension
- Hyperuricemia
- Hypotension
- Idiopathic Pulmonary Fibrosis
- Immunologic Deficiency Syndromes
- Infant
- Infection
- Infectious Mononucleosis
- Infertility
- Inflammation
- Inflammatory Bowel Diseases
- Intervertebral Disk Displacement
- Irritable Bowel Syndrome
- Kidney Diseases
- Kidney Failure
- Kidney Neoplasms
- Leishmaniasis
- Leprosy
- Leptospirosis
- Leukemia

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- Lichen Planus
- Liver Cirrhosis
- Liver Neoplasms
- Lung Diseases
- Lung Neoplasms
- Lupus Erythematosus
- Lymphadenitis
- Lymphatic Metastasis
- Lymphocytosis
- Lymphoma
- Lymphoproliferative Disorders
- Malaria
- Malignant melanoma
- Melanoma
- Mental Disorders
- Metaplasia
- Mood Disorders
- Multiple Organ Failure
- Multiple Sclerosis
- Multiple Trauma
- Musculoskeletal Diseases
- Myasthenia Gravis
- Myocardial Infarction
- Myositis
- Nasopharyngeal Neoplasms
- Neoplasm Invasiveness
- Neoplasm Metastasis

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- Neoplasms
- Neovascularization
- Neuropsychological Tests
- Obstetric Labor
- Osteolysis
- Osteomyelitis
- Osteoporotic Fractures
- Otitis Media
- Pain
- Pancreatic cancer
- Pancreatic Neoplasms
- Pancreatitis
- Papillomavirus Infections
- Paracoccidioidomycosis
- Paratyphoid Fever
- Parkinson disease
- Parvoviridae Infections
- Pemphigoid
- Pemphigus
- Periodontal Pocket
- Periodontitis
- Picornaviridae Infections
- Pneumonia
- Polymyalgia Rheumatica
- Polymyositis
- Postoperative Complications

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- Precancerous Conditions
- Pre-Eclampsia
- Pregnancy Complications
- Premature Birth
- Prosthesis Failure
- Psoriasis
- Pulmonary Disease
- Pulmonary Emphysema
- Pulmonary Fibrosis
- Purpura
- Q Fever
- Radiation Injuries
- Radiation Pneumonitis
- Recurrence
- Reperfusion Injury
- Respiratory Distress Syndrome
- Respiratory Sounds
- Respiratory Syncytial Virus Infections
- Respiratory Tract Infections
- Retinal Detachment
- Retinal Diseases
- Rhinitis
- Rupture
- Salmonella Infections
- Sarcoidosis
- Schistosomiasis mansoni

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- Sciatica
- Scleroderma
- Sepsis
- Severe Acute Respiratory Syndrome
- Severe combined immunodeficiency
- Shock
- Skin Diseases
- Skin Neoplasms
- Skin Ulcer
- Small Cell Lung Carcinoma
- Staphylococcal Infections
- Stomach Neoplasms
- Subacute Sclerosing Panencephalitis
- Substance Withdrawal Syndrome
- Sudden Infant Death
- Syndrome
- Temporal Arteritis
- Thoracic Neoplasms
- Tobacco Use Disorder
- Trypanosomiasis
- Tuberculosis
- Tuberous sclerosis
- Typhoid Fever
- Urinary Bladder Neoplasms
- Uterine Cervical Neoplasms
- Uveitis

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- Uveomeningoencephalitic Syndrome
- Vascular Diseases
- Viremia
- Vitiligo
- Vitreoretinopathy
- Wegener Granulomatosis
- Werner syndrome
- Wounds and Injuries

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