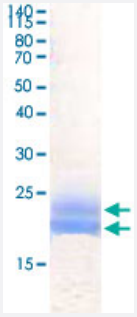
Bioactive | Full-Length | Sm Size

# IFNG (Human) Recombinant Protein

Catalog # P5817 Size 100 ug, 50 ug, 10 ug

## Applications




### Result of activity analysis

Result of activity analysis

## Specification

| | |
|---|---|
| **Product Description** | Human IFNG (143 a.a.) full-length recombinant protein with His tag expressed in Barley grain (*Horde um vulgare*). |
| **Host** | Plants |
| **Theoretical MW (kDa)** | 25, 27 |
| **Form** | Lyophilized |
| **Preparation Method** | Barley grain (*Hordeum vulgare*) expression system |
| **Purification** | Chromatography |
| **Concentration** | 100 ug/mL |

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| | |
|---|---|
| **Purity** | > 98% by SDS-PAGE |
| **Endotoxin Level** | Endotoxin level is less than 0.005ng per ug protein (0.05EU/ug) as measured by turbidimetric kinetic assay |
| **Activity** | The $ED_{50}$ is determined by the dose-dependent cytostatic effects of serial dilutions of IFNG in the presence of TNF-alpha, on HT-29 (human carcinoma) cells. The $ED_{50}$ is typically below 5 ng/mL. This lot has $ED_{50}$ 2.7-4.1 ng/mL. |
| **Quality Control Testing** | SDS-PAGE Stained with Coomassie Blue |
| **Storage Buffer** | Lyophilized from PBS, pH 7.4 |
| **Storage Instruction** | Store at -20°C on dry atmosphere.<br>After reconstitution with sterile water to a concentration of no less than 100 ug/mL, store at -20°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).<br>Aliquot to avoid repeated freezing and thawing. |
| **Note** | Result of activity analysis<br>Result of activity analysis |

## Applications

- Functional Study
- SDS-PAGE

## Gene Info — IFNG

| | |
|---|---|
| **Entrez GeneID** | 3458 |
| **Protein Accession#** | NP_000610.2 |
| **Gene Name** | IFNG |
| **Gene Alias** | IFG, IFI |
| **Gene Description** | interferon, gamma |
| **Omim ID** | 147570 191100 607948 609135 609423 |
| **Gene Ontology** | Hyperlink |

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| | |
|---|---|
| **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

- Abortion
- Abscess
- Acquired Immunodeficiency Syndrome
- Acute Disease
- Adenocarcinoma

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- 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
- Breast Neoplasms
- Bronchial Hyperreactivity
- Bronchiectasis
- Bronchiolitis
- Bronchiolitis Obliterans

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- 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
- Condylomata Acuminata
- Connective Tissue Diseases
- Coronary Artery Disease
- Coronary Disease
- Coronary Restenosis

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- 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
- Enterocolitis
- Epstein-Barr Virus Infections
- Esophageal Neoplasms
- Esophagitis
- Fatigue Syndrome

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- 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
- HIV Infections
- Hodgkin Disease

- Hyperglycemia
- Hyperlipidemias

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- 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
- Lichen Planus
- Liver Cirrhosis
- Liver Neoplasms
- Lung Diseases
- Lung Neoplasms
- Lupus Erythematosus

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- 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
- Neoplasms
- Neovascularization
- Neuropsychological Tests
- Obstetric Labor
- Osteolysis

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- 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
- Precancerous Conditions
- Pre-Eclampsia
- Pregnancy Complications
- Premature Birth
- Prosthesis Failure

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- 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
- Sciatica
- Scleroderma
- Sepsis
- Severe Acute Respiratory Syndrome
- Severe combined immunodeficiency

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- 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
- Uveomeningoencephalitic Syndrome
- Vascular Diseases
- Viremia
- Vitiligo

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- Vitreoretinopathy
- Wegener Granulomatosis
- Werner syndrome
- Wounds and Injuries

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