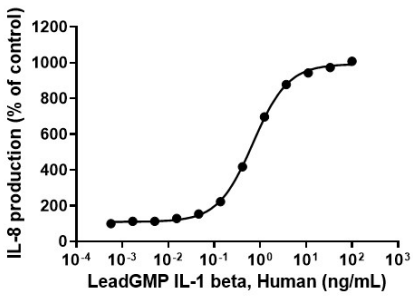
Bioactive | CellTx™ | GMP Grade

IL1B (Human) Recombinant Protein

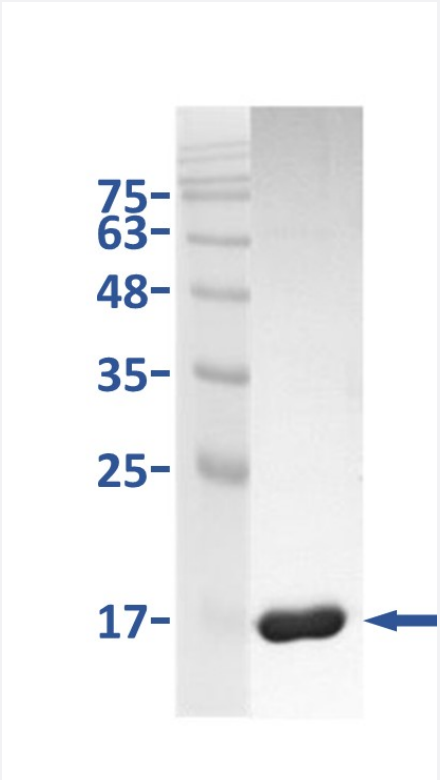
Catalog # P6992 Size 100 ug

Applications



Functional Study

The ED_{50} for this effect is < 2.0 ng/mL, measured by the induction of IL-8 secretion in HT29 cells.



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Specification

Product Description	Human IL1B recombinant protein with His tag expressed in *Escherichia coli*.
Host	Escherichia coli
Theoretical MW (kDa)	Calculated MW: 18.5
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 < 2.0 ng/mL, measured by the induction of IL-8 secretion in HT29 cells. The specific activity of recombinant human IL-1 beta is approximately > 5 x 10^7 IU/mg, which is calibrated against the human IL-1 beta WHO International Standard (NIBSC code: 86/680).
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 < 2.0 ng/mL, measured by the induction of IL-8 secretion in HT29 cells.

- SDS-PAGE

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Gene Info — IL1B

Entrez GeneID	3553
Gene Name	IL1B
Gene Alias	IL-1, IL1-BETA, IL1F2
Gene Description	interleukin 1, beta
Omim ID	137215 147720
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene is a member of the interleukin 1 cytokine family. This cytokine is produced by activated macrophages as a proprotein, which is proteolytically processed to its acti ve form by caspase 1 (CASP1/ICE). This cytokine is an important mediator of the inflammatory re sponse, and is involved in a variety of cellular activities, including cell proliferation, differentiation, and apoptosis. The induction of cyclooxygenase-2 (PTGS2/COX2) by this cytokine in the central n ervous system (CNS) is found to contribute to inflammatory pain hypersensitivity. This gene and ei ght other interleukin 1 family genes form a cytokine gene cluster on chromosome 2. [provided by RefSeq
Other Designations	catabolin|preinterleukin 1 beta|pro-interleukin-1-beta

Pathway

- Apoptosis
- Cytokine-cytokine receptor interaction
- Graft-versus-host disease
- Hematopoietic cell lineage
- MAPK signaling pathway
- Prion diseases
- Toll-like receptor signaling pathway
- Type I diabetes mellitus

Disease

- Abortion

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- Abscess
- Achlorhydria
- Acquired Immunodeficiency Syndrome
- Acute Disease
- Adenocarcinoma
- Adenomatous Polyps
- Aggressive Periodontitis
- AIDS Dementia Complex
- Albuminuria
- Alcoholism
- Alopecia Areata
- Alveolar Bone Loss
- Alzheimer disease
- Amyloidosis
- Anemia
- Aneurysm
- Anorexia
- Anorexia Nervosa
- Aortic Aneurysm
- Aortic Rupture
- Appendicitis
- Appetite
- Arterial Occlusive Diseases
- Arteriosclerosis
- Arthralgia

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- Arthritis
- Aspergillosis
- Asphyxia Neonatorum
- Asthma
- Atherosclerosis
- Atrial Fibrillation
- Atrophy
- Autoimmune Diseases
- Azoospermia
- Bacteremia
- Bacterial Infections
- Behcet Syndrome
- Berylliosis
- Biliary Atresia
- Biliary Tract Neoplasms
- Bipolar Disorder
- Blood Coagulation Disorders
- Bone Diseases
- Bone Marrow Diseases
- Bone Resorption
- Brain Damage
- Brain Edema
- Brain Hemorrhage
- Brain Injuries
- Brain Ischemia
- Breast cancer

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- Breast Neoplasms
- Bronchial Hyperreactivity
- Bronchiolitis
- Bulimia
- Burning Mouth Syndrome
- Burns
- Cachexia
- Cadaver
- Calcinosis
- Campylobacter Infections
- Carcinoma
- Cardiomyopathy
- Cardiovascular Diseases
- Celiac Disease
- Cell Transformation
- Cerebral Hemorrhage
- Cerebral Infarction
- Cerebral Palsy
- Cerebrovascular Accident
- Cerebrovascular Disorders
- Chagas Cardiomyopathy
- Chagas Disease
- Chlamydia Infections
- Chlamydophila Infections
- Chorioamnionitis
- Choroidal Neovascularization

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- Chronic Disease
- Chronic Periodontitis
- Cognition
- Cognition Disorders
- Colitis
- Colon cancer
- Colonic Neoplasms
- Colonic Polyps
- Colorectal Neoplasms
- Common Variable Immunodeficiency
- Communicable Diseases
- Connective Tissue Diseases
- Constriction
- Coronary Artery Disease
- Coronary Disease
- Coronary Restenosis
- Coronary Stenosis
- Critical Illness
- Crohn Disease
- Cystic fibrosis
- Death
- Delayed Graft Function
- Dementia
- Dental Calculus
- Dental Fistula
- Dental Occlusion

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- Dental Plaque
- Depressive Disorder
- Dermatitis
- Dermatomyositis
- Diabetes Complications
- Diabetes Mellitus
- Diabetic Nephropathies
- Disease Progression
- Disease Susceptibility
- Drug Eruptions
- Ductus Arteriosus
- Duodenal Ulcer
- Dyspepsia
- Dysthymic Disorder
- Edema
- Encephalitis
- Endometriosis
- Enterocolitis
- Epilepsy
- Epstein-Barr Virus Infections
- Erythema
- Esophageal Neoplasms
- Esophagitis
- Fabry Disease
- Fallopian Tube Diseases
- Familial Mediterranean fever

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- Fatigue
- Fatigue Syndrome
- Fatty Liver
- Fetal Death
- Fetal Diseases
- Fetal Membranes
- Fever
- Gallbladder Neoplasms
- Gastritis
- Gastroenteritis
- Gastroesophageal Reflux
- Gastrointestinal Diseases
- Genetic Predisposition to Disease
- Genomic Instability
- Gingival Hemorrhage
- Gingival Recession
- Gingivitis
- Glaucoma
- Glomerulonephritis
- Glossitis
- Gout
- Graft vs Host Disease
- Gram-Negative Bacterial Infections
- Graves Disease
- Graves Ophthalmopathy

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- Hashimoto Disease
- Heartburn
- Helicobacter Infections
- HELLP Syndrome
- Hematologic Diseases
- Hematologic Neoplasms
- Hematuria
- Hemolysis
- Hemophilia A
- Hemorrhagic Fever with Renal Syndrome
- Hepatitis
- Hepatitis B
- Hepatitis C
- HIV Infections
- Hodgkin Disease
- HTLV-I Infections
- Hypercholesterolemia
- Hypersensitivity
- Hypertension
- Hypoxia-Ischemia
- Infant
- Infection
- Infertility
- Inflammation
- Inflammatory Bowel Diseases
- Insulin Resistance

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- Intervertebral Disk Degeneration
- Intervertebral Disk Displacement
- Intestinal Neoplasms
- Intracranial Arteriosclerosis
- Intracranial Arteriovenous Malformations
- Inversion
- Irritable Bowel Syndrome
- Jaw
- Keratoconus
- Kidney Diseases
- Kidney Failure
- Laryngeal Neoplasms
- Leiomyoma
- Leptospirosis
- Leukemia
- Lichen Planus
- Lipodystrophy
- Liver Cirrhosis
- Liver Diseases
- Liver Failure
- Liver Neoplasms
- Low Back Pain
- Lung Diseases
- Lung Neoplasms
- Lupus Erythematosus
- Lymphadenitis

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- Lymphatic Diseases
- Lymphatic Metastasis
- Lymphoma
- Lymphoproliferative Disorders
- Macular Degeneration
- Malaria
- Malignant melanoma
- Mandibular Diseases
- Maxillary Diseases
- Measles
- Melanoma
- Memory
- Meningococcal Infections
- Mental Disorders
- Mental Processes
- Metabolic Syndrome X
- Metaplasia
- Migraine Disorders
- Mitral Valve Prolapse
- Mood Disorders
- Mouth Neoplasms
- Mucocutaneous Lymph Node Syndrome
- Multiple Myeloma
- Multiple Organ Failure
- Multiple Sclerosis
- Multiple System Atrophy

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- Multiple Trauma
- Mumps
- Musculoskeletal Diseases
- Mycobacterium Infections
- Myocardial Infarction
- Nasal Polyps
- Nasopharyngeal Neoplasms
- Neoplasm Invasiveness
- Neoplasm Metastasis
- Neoplasm Recurrence
- Neoplasms
- Neovascularization
- Nephritis
- Nephrolithiasis
- Nephrotic Syndrome
- Nerve Degeneration
- Nervous System Diseases
- Neuropsychological Tests
- Neutropenia
- Obesity
- Obstetric Labor
- Occupational Diseases
- Ocular Hypertension
- Oligospermia
- Opioid-Related Disorders
- Ossification of Posterior Longitudinal Ligament

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- Osteitis Deformans
- Osteoarthritis
- Osteolysis
- Osteomyelitis
- Osteoporosis
- Otitis Media
- Ovarian cancer
- Ovarian Neoplasms
- Pain
- Pancreatic cancer
- Pancreatic Neoplasms
- Pancreatitis
- Papillomavirus Infections
- Paraparesis
- Parasitemia
- Paratyphoid Fever
- Parkinson disease
- Pemphigoid
- Pemphigus
- Peptic Ulcer
- Periapical Periodontitis
- Periodontal Attachment Loss
- Periodontal Diseases
- Periodontal Pocket
- Periodontitis
- Peripheral Vascular Diseases

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- Pharyngeal Neoplasms
- Pneumococcal Infections
- Pneumoconiosis
- Polycystic Ovary Syndrome
- Polymyalgia Rheumatica
- Postoperative Complications
- Postoperative Hemorrhage
- Precancerous Conditions
- Pre-Eclampsia
- Pregnancy Complications
- Premature Birth
- Prostate cancer
- Prostatic Hyperplasia
- Prostatic Neoplasms
- Prosthesis Failure
- Proteinuria
- Psoriasis
- Psychiatric Status Rating Scales
- Psychometrics
- Psychomotor Performance
- Psychotic Disorders
- Pterygium
- Puerperal Disorders
- Pulmonary Disease
- Pulmonary Fibrosis
- Purpura

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- Q Fever
- Radiation Injuries
- Radiation Pneumonitis
- Recurrence
- Respiratory Hypersensitivity
- Respiratory Syncytial Virus Infections
- Respiratory Tract Infections
- Retinal Vein Occlusion
- Retinopathy of Prematurity
- Rheumatic Diseases
- Rheumatic Heart Disease
- Rhinitis
- Root Resorption
- Rubella
- Salmonella Infections
- Sarcoidosis
- Sarcoma
- Schizophrenia
- Sciatica
- Scleroderma
- Sclerosis
- Seizures
- Sepsis
- Severe Acute Respiratory Syndrome
- Shock
- Silicosis

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- Sinusitis
- Skin Diseases
- Skin Neoplasms
- Skin Ulcer
- Sleep Apnea
- Small Cell Lung Carcinoma
- Spinal Diseases
- Spinal Osteophytosis
- Spondylitis
- Stomach Diseases
- Stomach Neoplasms
- Stomach Ulcer
- Stomatitis
- Streptococcal Infections
- Stress
- Stroke
- Subarachnoid Hemorrhage
- Sudden Infant Death
- Syndrome
- Systemic Inflammatory Response Syndrome
- Temporal Arteritis
- Thinness
- Thoracic Neoplasms
- Thrombosis
- Thyroid Diseases

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- Thyroiditis
- Tooth Diseases
- Tooth Loss
- Tooth Mobility
- Tourette Syndrome
- Trachoma
- Tuberculosis
- Typhoid Fever
- Uremia
- Urinary Bladder Neoplasms
- Urinary Calculi
- Urolithiasis
- Uterine Cervical Neoplasms
- Uterine Diseases
- Uterine Neoplasms
- Vaginal Diseases
- Vaginosis
- Vasculitis
- Venous Thrombosis
- Viremia
- Vulvar Neoplasms
- Vulvovaginitis
- Waldenstrom Macroglobulinemia
- Wasting Syndrome
- Weight Loss
- Werner syndrome

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