

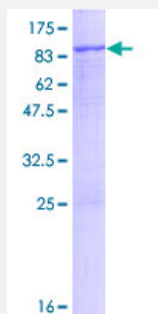
Full-Length

MMP2 (Human) Recombinant Protein (P01)

Catalog # H00004313-P01

Size 25 ug, 10 ug

Applications



Specification

Product Description

Human MMP2 full-length ORF (AAH02576.1, 1 a.a. - 660 a.a.) recombinant protein with GST-tag at N-terminal.

Sequence

MEALMARGALTGPLRALCLLGCLLSHAAAAPSPIIKFPGDVAPKTDKELAVQYLNTFYGCPKESC
NLFVLKDTLKKMQKFFGLPQTGDLQNTIETMRKPRCGNPDVANYNFFPRKPKWDKNQITYRIIGY
TPDLDPETVDDAFARAFQVWSDVTPLRFSRIHDGEADIMINFGRWEHGDGYFPDGKDGLLAHAF
APGTGVGGDSHFDDDELWTLGEGQVVRVKYGNADGEYCKFPFLFNGKEYNSCTDTGRSDGFL
WCSTTYNFEKDGKYGFCPHEALFTMGGNAEGQPCKFPFRFQGTSYDSCCTTEGRTDGYRWCGTT
EDYDRDKKYGFCPETAMSTVGGNSEGAPCVFPFTFLGNKYESCTSAGRSDGKMWCATTANYDD
DRKWGFCPDQGYSLFLVAAHEFGHAMGLEHSQDPGALMAPITYTKNFRLSQDDIKIGIQLYGLAS
PDIDLGTGPTPTLGPVTPEICKQDIVFDGIAQIRGEIFFFKDRFWRTVTPRDKPMGPLLVAATFWPEL
PEKIDAVYEAPQEEKAVFFAGNEYWIYSASTLERGYPKPLTSLGLPPDVQRVDAAFNWSKNKKTYI
FAGDKFWRYNEVKKKMDPGFPKLIADAWNAPDNLDAVVDLQGGGHSYFFKGAYLKLLENQSLK
SVKFGSIKSDWLGC

Host

Wheat Germ (in vitro)

Theoretical MW (kDa)

100.3

Interspecies Antigen Sequence

Mouse (96); Rat (95)

Preparation Method

[in vitro wheat germ expression system](#)

Purification	Glutathione Sepharose 4 Fast Flow
Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — MMP2

Entrez GeneID	4313
GeneBank Accession#	BC002576.2
Protein Accession#	AAH02576.1
Gene Name	MMP2
Gene Alias	CLG4, CLG4A, MMP-II, MONA, TBE-1
Gene Description	matrix metallopeptidase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase)
Omim ID	120360 277950 605156
Gene Ontology	Hyperlink

Gene Summary

Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis and metastasis. Most MMP's are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. This gene encodes an enzyme which degrades type IV collagen, the major structural component of basement membranes. The enzyme plays a role in endometrial menstrual breakdown, regulation of vascularization and the inflammatory response. Mutations in this gene have been associated with Winchester syndrome and Nodulosis-Arthropathy-Osteolysis (NAO) syndrome. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq]

Other Designations

collagenase type IV-A|matrix metalloproteinase 2|matrix metalloproteinase-III|neutrophil gelatinase

Publication Reference

- [Genomic reprogramming analysis of the Mesothelial to Mesenchymal Transition identifies biomarkers in peritoneal dialysis patients.](#)

Vicente Ruiz-Carpio, Pilar Sandoval, Abelardo Aguilera, Patricia Albar-Vizcaino, María Luisa Perez-Lozano, Guadalupe T González-Mateo, Adrián Acuña-Ruiz, Jesús García-Cantalejo, Pedro Botías, María Auxiliadora Bajo, Rafael Selgas, José Antonio Sánchez-Tomero, Jutta Passlick-Deetjen, Dorothea Piecha, Janine Büchel, Sonja Steppan, Manuel López-Cabrera.

Scientific Reports 2017 Mar; 7:44941.

Application: ELISA, Human, Human mesothelial cells

Pathway

- [Bladder cancer](#)
- [GnRH signaling pathway](#)
- [Leukocyte transendothelial migration](#)
- [Pathways in cancer](#)

Disease

- [Acute Disease](#)
- [Adenocarcinoma](#)
- [Alzheimer disease](#)
- [Aortic Aneurysm](#)
- [Arthritis](#)

- [Atherosclerosis](#)
- [Atrial Fibrillation](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Bronchopulmonary Dysplasia](#)
- [Carcinoma](#)
- [Cardiac Output](#)
- [Cardiovascular Diseases](#)
- [Carotid Artery Diseases](#)
- [Carotid Stenosis](#)
- [Cervical Intraepithelial Neoplasia](#)
- [Chorioamnionitis](#)
- [Chronic Disease](#)
- [Cleft Lip](#)
- [Cleft Palate](#)
- [Colitis](#)
- [Colorectal Neoplasms](#)
- [Connective Tissue Diseases](#)
- [Constriction](#)
- [Coronary Aneurysm](#)
- [Coronary Artery Disease](#)
- [Coronary Disease](#)
- [Crohn Disease](#)
- [Diabetes Complications](#)
- [Diabetes Mellitus](#)

- [Diabetic Angiopathies](#)
- [Diabetic Retinopathy](#)
- [Disease](#)
- [Disease Progression](#)
- [Disease Susceptibility](#)
- [Edema](#)
- [Endometrial Neoplasms](#)
- [Endometriosis](#)
- [Esophageal Neoplasms](#)
- [Exfoliation Syndrome](#)
- [Fetal Diseases](#)
- [Fetal Growth Retardation](#)
- [Fetal Membranes](#)
- [Fractures](#)
- [Genetic Predisposition to Disease](#)
- [Glaucoma](#)
- [Graft Occlusion](#)
- [Head and Neck Neoplasms](#)
- [Heart Failure](#)
- [Helicobacter Infections](#)
- [Hepatitis C](#)
- [Hypersensitivity](#)
- [Hypertension](#)
- [Hypertrophy](#)
- [Infection](#)
- [Inflammation](#)

- [Intervertebral Disk Displacement](#)
- [Intracranial Aneurysm](#)
- [Kidney Failure](#)
- [Liver Cirrhosis](#)
- [Liver Neoplasms](#)
- [Lung Neoplasms](#)
- [Lymphoma](#)
- [Macular Degeneration](#)
- [Malignant melanoma](#)
- [Melanoma](#)
- [Metabolic Syndrome X](#)
- [Metaplasia](#)
- [Mouth Neoplasms](#)
- [Mucocutaneous Lymph Node Syndrome](#)
- [Multiple Sclerosis](#)
- [Musculoskeletal Diseases](#)
- [Myocardial Infarction](#)
- [Myopia](#)
- [Nasal Polyps](#)
- [Nasopharyngeal Neoplasms](#)
- [Neoplasm](#)
- [Neoplasm Invasiveness](#)
- [Neoplasm Metastasis](#)
- [Neoplasms](#)
- [Neovascularization](#)
- [Obstetric Labor](#)

- [Oral Submucous Fibrosis](#)
- [Osteoarthritis](#)
- [Osteolysis](#)
- [Osteoporosis](#)
- [Ovarian cancer](#)
- [Ovarian Neoplasms](#)
- [Parapsoriasis](#)
- [Periodontitis](#)
- [Pre-Eclampsia](#)
- [Pregnancy Complications](#)
- [Premature Birth](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Prosthesis-Related Infections](#)
- [Psoriasis](#)
- [Pulmonary Disease](#)
- [Pulmonary Fibrosis](#)
- [Recurrence](#)
- [Rhinitis](#)
- [Scleroderma](#)
- [Sinusitis](#)
- [Skin Diseases](#)
- [Skin Neoplasms](#)
- [Spinal Diseases](#)
- [Stomach Neoplasms](#)
- [Stroke](#)

- [Subarachnoid Hemorrhage](#)
- [Urinary Bladder Neoplasms](#)
- [Uterine Cervical Neoplasms](#)
- [Uterine Diseases](#)