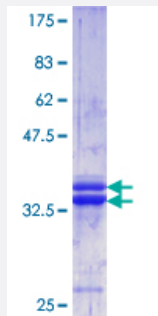


COL1A1 (Human) Recombinant Protein (Q01)

Catalog # H00001277-Q01

Size 25 ug, 10 ug

Applications



Specification

Product Description	Human COL1A1 partial ORF (NP_000079.1, 1021 a.a. - 1108 a.a.) recombinant protein with GST-tag at N-terminal.
Sequence	EGSPGRDGSPGAKGDRGETGPAGPPGAPGAPGAPGVPAGKSGDRGETGPAGPAGPVGPVGARGPAGPQGPRGDKGETGEQGDRIK
Host	Wheat Germ (in vitro)
Theoretical MW (kDa)	35.42
Interspecies Antigen Sequence	Mouse (95); 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 — COL1A1

Entrez GeneID [1277](#)

GeneBank Accession# [NM_000088](#)

Protein Accession# [NP_000079.1](#)

Gene Name COL1A1

Gene Alias OI4

Gene Description collagen, type I, alpha 1

Omim ID [114000](#) [120150](#) [130000](#) [130060](#) [166200](#) [166210](#) [166220](#) [166710](#) [259420](#)

Gene Ontology [Hyperlink](#)

Gene Summary This gene encodes the pro-alpha1 chains of type I collagen whose triple helix comprises two alpha1 chains and one alpha2 chain. Type I is a fibril-forming collagen found in most connective tissues and is abundant in bone, cornea, dermis and tendon. Mutations in this gene are associated with osteogenesis imperfecta types I-IV, Ehlers-Danlos syndrome type VIIA, Ehlers-Danlos syndrome Classical type, Caffey Disease and idiopathic osteoporosis. Reciprocal translocations between chromosomes 17 and 22, where this gene and the gene for platelet-derived growth factor beta are located, are associated with a particular type of skin tumor called dermatofibrosarcoma protuberans, resulting from unregulated expression of the growth factor. Two transcripts, resulting from the use of alternate polyadenylation signals, have been identified for this gene. [provided by R. Dalgleish]

Other Designations alpha 1 type I collagen|collagen alpha 1 chain type I|collagen of skin, tendon and bone, alpha-1 chain|pro-alpha-1 collagen type 1|type I collagen alpha 1 chain

Publication Reference

- [Vascular endothelial growth factor-transfected adipose-derived stromal cells enhance bone regeneration and neovascularization from bone marrow stromal cells.](#)

Kang ML, Kim JE, Im GI.

Journal of Tissue Engineering and Regenerative Medicine 2017 Feb; [Epub].

Application: EPair-Re, Human, Adipose-derived stromal cells, Bone marrow stromal cells

Pathway

- [ECM-receptor interaction](#)
- [Focal adhesion](#)

Disease

- [Alzheimer disease](#)
- [Aortic Aneurysm](#)
- [beta-Thalassemia](#)
- [Body Weight](#)
- [Bone Diseases](#)
- [Bone Neoplasms](#)
- [Cardiovascular Diseases](#)
- [Chorioamnionitis](#)
- [Chronic Disease](#)
- [Clubfoot](#)
- [Connective Tissue Diseases](#)
- [Coronary Artery Disease](#)
- [Crohn Disease](#)
- [Cystic fibrosis](#)
- [Diabetes Complications](#)
- [Diabetes Mellitus](#)

- [Disease Susceptibility](#)
- [Diseases in Twins](#)
- [Dwarfism](#)
- [Edema](#)
- [Femoral Neck Fractures](#)
- [Fetal Diseases](#)
- [Fetal Membranes](#)
- [Fractures](#)
- [Genetic Predisposition to Disease](#)
- [Glaucoma](#)
- [Hearing Loss](#)
- [Hepatitis B](#)
- [Hip Dislocation](#)
- [Hip Fractures](#)
- [Infection](#)
- [Inflammation](#)
- [Insulin Resistance](#)
- [Intervertebral Disk Displacement](#)
- [Liver Cirrhosis](#)
- [Low Back Pain](#)
- [Metabolic Syndrome X](#)
- [Mouth Neoplasms](#)
- [Musculoskeletal Diseases](#)
- [Myocardial Infarction](#)
- [Myopia](#)
- [Neoplasms](#)

- [Obstetric Labor](#)
- [Oral Submucous Fibrosis](#)
- [Osteoarthritis](#)
- [Osteogenesis Imperfecta](#)
- [Osteoporosis](#)
- [Otosclerosis](#)
- [Periodontitis](#)
- [Precancerous Conditions](#)
- [Pre-Eclampsia](#)
- [Pregnancy Complications](#)
- [Premature Birth](#)
- [Puberty](#)
- [Pulmonary Disease](#)
- [Rupture](#)
- [Shoulder Dislocation](#)
- [Skin Diseases](#)
- [Soft Tissue Injuries](#)
- [Spinal Diseases](#)
- [Spinal Fractures](#)
- [Spinal Injuries](#)
- [Tendinopathy](#)
- [Thalassemia](#)
- [Tobacco Use Disorder](#)
- [Urinary Incontinence](#)
- [Uterine Cervical Incompetence](#)
- [Wrist Injuries](#)