

## Recombinant Human COL2A1, His-tagged

Cat. No. COL2A1-11432H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Recombinant Human COL2A1 protein, fused to His-tag, was expressed in E.coli and purified by Ni-sepharose.

**Species** Human

**Source** E.coli

**ProteinLength** C-288a.a.

**Description** This gene encodes the alpha-1 chain of type II collagen, a fibrillar collagen found in cartilage and the vitreous humor of the eye. Mutations in this gene are associated with achondrogenesis, chondrodysplasia, early onset familial osteoarthritis, SED congenita, Langer-Saldino achondrogenesis, Kniest dysplasia, Stickler syndrome type I, and spondyloepimetaphyseal dysplasia Strudwick type. In addition, defects in processing chondrocalcin, a calcium binding protein that is the C-propeptide of this collagen molecule, are also associated with chondrodysplasia. There are two transcripts identified for this gene.

**Storage** The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.

**Storage Buffer** 1M PBS (58mM Na<sub>2</sub>HPO<sub>4</sub>, 17mM NaH<sub>2</sub>PO<sub>4</sub>, 68mM NaCl, pH8. ) added with 300mM Imidazole and 0.7% Sarcosyl, 15% glycerol.

### GENE INFORMATION

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<b>Gene Name</b>	COL2A1 collagen, type II, alpha 1 [ Homo sapiens ]
<b>Official Symbol</b>	COL2A1
<b>Synonyms</b>	COL2A1; collagen, type II, alpha 1; collagen, type II, alpha 1 (primary osteoarthritis, spondyloepiphyseal dysplasia, congenital) , SEDC; collagen alpha-1(II) chain; chondrocalcin; cartilage collagen; alpha-1 type II collagen; collagen II, alpha-1 polypeptide; AOM; ANFH; SEDC; COL11A3; MGC131516;
<b>Gene ID</b>	1280
<b>mRNA Refseq</b>	NM_001844
<b>Protein Refseq</b>	NP_001835
<b>UniProt ID</b>	P02458
<b>Chromosome Location</b>	12q12-q13.2
<b>Pathway</b>	Amoebiasis, organism-specific biosystem; Amoebiasis, conserved biosystem; Axon guidance, organism-specific biosystem; Developmental Biology, organism-specific biosystem; ECM-receptor interaction, organism-specific biosystem; ECM-receptor interaction, conserved biosystem; Endochondral Ossification, organism-specific biosystem;
<b>Function</b>	extracellular matrix structural constituent conferring tensile strength; identical protein binding; platelet-derived growth factor binding;

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