

## Recombinant Human COL10A1, His-tagged

Cat. No. COL10A1-85H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	A DNA sequence encoding human COL10A1 corresponding to amino acid (19-680) was expressed with an N-terminal polyhistidine tag.
<b>Species</b>	Human
<b>Source</b>	Insect Cells
<b>ProteinLength</b>	19-680 a.a.
<b>Description</b>	This gene encodes the alpha chain of type X collagen, a short chain collagen expressed by hypertrophic chondrocytes during endochondral ossification. Unlike type VIII collagen, the other short chain collagen, type X collagen is a homotrimer. Mutations in this gene are associated with Schmid type metaphyseal chondrodysplasia (SMCD) and Japanese type spondylometaphyseal dysplasia (SMD).
<b>Form</b>	Liquid. PBS pH7.4
<b>AA Sequence</b>	VFYAERYQMPTGIKGPLNPKTKQFFIPYTIKSKGIAVRGEQGTGPPGPAGPRGHPG PSGPPGKPGYGSPGLQGE PGLPGPPGPSAVGKPGVPGLPGKPGERGPYGPKGD VGPAAGLPGRGPPGPPGIPGPAGISVPGKPGQQGPTGAPG PRGFPGKEKGAPGVP GMNGQKGEEMGYGAPGRPGERGLPGPQGPTGPSGPPGVGKRGENGVPGQPGIKG DRGFPGEM GPIGPPGPQGPPGERGPEGIGKPGAAGAPGQPGIPGTKGLPGAPGIA GPPGPPGFGKPLPGLKGERGPAGLPGG PGAKGEQGPAGLPKPLTGPNGM GPQGPKGIPGSHGLPGPKGETGPAGPAGYPGAKGERGSPGSDGKPGYPGK PGLD

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GPKGNPGLPGPKGDVGGPPGLPGVGPAGAKGMPGHNGEAGPRGAPGIPGTR  
 GPIGPPGIPGFPGSKGD PGSPGPPGAGIATKGLNGPTGPPGPPGPRGHSGEPL  
 PGPPGPPGPPGQAVMPEGFIKAGQRPSLSGTPLVSAN QGVTGMPVSAFTVILSKAY  
 PAIGTPIPFDKILYNRQQHYDPRTGIFTCQIPGIYYFSYHVHVKGTHVWVGLYKNG TP  
 VMYTYDEYTKGYLDQASGSAIIDLTENDQVWLQLPNAESNGLYSSEYVHSSFSGFLV  
 APM

**Purity** >90% as determined by SDS-PAGE

**Storage** Store it at +4°C for short term (5 weeks). For long term storage (12 months), store it at -20°C - -70°C. Avoid freeze-thaw cycles.

## GENE INFORMATION

**Gene Name** COL10A1 collagen, type X, alpha 1 [ Homo sapiens (human) ]

**Official Symbol** COL10A1

**Synonyms** COL10A1; collagen, type X, alpha 1; collagen alpha-1(X) chain; Schmid metaphyseal chondrodysplasia; COAA1\_HUMAN; Col10a 1; COL10A1; Collagen alpha 1(X) chain; Collagen alpha-1(X) chain; Collagen type X alpha 1 (Schmid metaphyseal chondrodysplasia); Collagen type X alpha 1; Collagen X alpha 1 polypeptide; CollagenX; fa66d11; fb10c08; OTTHUMP00000040411; Procollagen type X alpha 1; Schmid metaphyseal chondrodysplasia; wu:fa66d11; wu:fb10c08; collagen X, alpha-1 polypeptide

**Gene ID** 1300

**mRNA Refseq** NM\_000493

**Protein Refseq** NP\_000484

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<b>MIM</b>	120110
<b>UniProt ID</b>	Q03692
<b>Chromosome Location</b>	6q21-q22
<b>Pathway</b>	Assembly of c; ollagen fibrils and other multimeric structures; Collagen biosynthesis and modifying enzymes; Endochondral Ossification
<b>Function</b>	metal ion binding

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