Recombinant Human COL1A1 protein, His-tagged

Cat. No. COL1A1-67H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human COL1A1(Ala1218~Ile1440) fused with His tag at N-terminal was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	Ala1218~Ile1440
Description	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.
Form	PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300
Molecular Mass	26.6kDa

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Endotoxin	<1.0EU per 1μg (determined by the LAL method)
Purity	> 95%
Applications	Positive Control; Immunogen; SDS-PAGE; WB. If bio-activity of the protein is needed, please check active protein
Stability	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 centigrade for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.
Reconstitution	Reconstitute in PBS or others.

GENE INFORMATION

Gene Name	COL1A1 collagen, type I, alpha 1 [Homo sapiens]
Official Symbol	COL1A1
Synonyms	COL1A1; collagen, type I, alpha 1; collagen alpha-1(I) chain; OI4; alpha-1 type I collagen; pro-alpha-1 collagen type 1; collagen alpha 1 chain type I; collagen alpha-1(I) chain preproprotein; collagen of skin, tendon and bone, alpha-1 chain;
Gene ID	1277
mRNA Refseq	NM_000088

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Protein Refseq	NP_000079
UniProt ID	P02452
Chromosome Location	17q21.33
Pathway	Amoebiasis, organism-specific biosystem; Amoebiasis, conserved biosystem; Axon guidance, organism-specific biosystem; Cell surface interactions at the vascular wall, organism-specific biosystem; Developmental Biology, organism-specific biosystem; ECM-receptor interaction, organism-specific biosystem; ECM-receptor interaction, conserved biosystem;
Function	extracellular matrix structural constituent; identical protein binding; platelet-derived growth factor binding; protein binding;

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