

Recombinant Human COL9A1, GST-tagged

Cat. No. COL9A1-11442H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human COL9A1 protein, fused to GST-tag, was expressed in E.coli and purified by GSH-sepharose.
Species	Human
Source	E.coli
ProteinLength	20-328a.a.
Description	This gene encodes one of the three alpha chains of type IX collagen, which is a minor (5-20%) collagen component of hyaline cartilage. Type IX collagen is usually found in tissues containing type II collagen, a fibrillar collagen. Studies in knockout mice have shown that synthesis of the alpha 1 chain is essential for assembly of type IX collagen molecules, a heterotrimeric molecule, and that lack of type IX collagen is associated with early onset osteoarthritis. Mutations in this gene are associated with osteoarthritis in humans, with multiple epiphyseal dysplasia, 6, a form of chondrodysplasia, and with Stickler syndrome, a disease characterized by ophthalmic, orofacial, articular, and auditory defects. Two transcript variants that encode different isoforms have been 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 ₂ HPO ₄ , 17mM NaH ₂ PO ₄ , 68mM NaCl, pH8.) added with 100mM GSH and 1% Triton X-100, 15% glycerol.

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GENE INFORMATION

Gene Name	COL9A1 collagen, type IX, alpha 1 [Homo sapiens]
Official Symbol	COL9A1
Synonyms	COL9A1; collagen, type IX, alpha 1; collagen alpha-1(IX) chain; alpha-1(IX) collagen chain; collagen IX, alpha-1 polypeptide; cartilage-specific short collagen; MED; EDM6; STL4; DJ149L1.1.2; FLJ40263;
Gene ID	1297
mRNA Refseq	NM_001851
Protein Refseq	NP_001842
MIM	120210
UniProt ID	P20849
Chromosome Location	6q12-q14
Pathway	Axon guidance, organism-specific biosystem; Developmental Biology, organism-specific biosystem; NCAM signaling for neurite out-growth, organism-specific biosystem; NCAM1 interactions, organism-specific biosystem; Protein digestion and absorption, organism-specific biosystem; Protein digestion and absorption, conserved biosystem; Signal Transduction, organism-specific biosystem;
Function	extracellular matrix structural constituent conferring tensile strength; metal ion binding; structural molecule activity;

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