

Collagen alpha-1(II) chain/COL2A1 Protein, Human (HEK293, His)

Cat. No.:	HY-P75333
Synonyms:	Collagen alpha-1(II) chain; Chondrocalcin; COL2A1
Species:	Human
Source:	HEK293
Accession:	P02458-2 (D1242-L1487)
Gene ID:	1280
Molecular Weight:	Approximately 32-37 kDa

PROPERTIES

AA Sequence	<p> D Q A A G G L R Q H D A E V D A T L K S L N N Q I E S I R S P E G S R K N P A R T C R D L K L C H P E W K S G D Y W I D P N Q G C T L D A M K V F C N M E T G E T C V Y P N P A N V P K K N W W S S K S K E K K H I W F G E T I N G G F H F S Y G D D N L A P N T A N V Q M T F L R L L S T E G S Q N I T Y H C K N S I A Y L D E A A G N L K K A L L I Q G S N D V E I R A E G N S R F T Y T A L K D G C T K H T G K W G K T V I E Y R S Q K T S R L P I I D I A P M D I G G P E Q E F G V D I G P V C F L </p>
Biological Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human COL2A1 is present at 2 µg/mL, can bind anti-COL2A1 Antibody. The ED50 for this effect is 188.4 ng/mL.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The COL2A1 protein, encoding the alpha-1(II) chain of type II collagen, exhibits specificity for cartilaginous tissues, playing a crucial role in normal embryonic skeletal development, linear growth, and the resilience of cartilage against compressive
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forces. As a fundamental component of homotrimers, COL2A1 contributes to the structural integrity and function of cartilage, highlighting its indispensable role in maintaining skeletal form and function throughout development and in resisting mechanical stress.

Caution: Product has not been fully validated for medical applications. For research use only.

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