

## Collagen alpha-1(IX) chain/COL9A1 Protein, Human (HEK293, His)

<b>Cat. No.:</b>	HY-P70009
<b>Synonyms:</b>	rHuCollagen alpha-1(IX) chain/COL9A1, His; Collagen alpha-1(IX) chain; DJ149L1.1.2; EDM6; MED; STL4
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	P20849-3 (A24-G598)
<b>Gene ID:</b>	1297
<b>Molecular Weight:</b>	38-50 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre> A V K R R P R F P V   N S N S N G G N E L   C P K I R I G Q D D   L P G F D L I S Q F Q V D K A A S R R A   I Q R V V G S A T L   Q V A Y K L G N N V   D F R I P T R N L Y P S G L P E E Y S F   L T T F R M T G S T   L K K N W N I W Q I   Q D S S G K E Q V G I K I N G Q T Q S V   V F S Y K G L D G S   L Q T A A F S N L S   S L F D S Q W H K I M I G V E R S S A T   L F V D C N R I E S   L P I K P R G P I D   I D G F A V L G K L A D N P Q V S V P F   E L Q W M L I H C D   P L R P R R E T C H   E L P A R I T P S Q T T D E R G P P G E   Q G P P G P P G P P   G V P G I D G I D G   D R G P K G P P G P P G P A G E P G K P   G A P G K P G T P G   A D T S P           </pre>
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	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.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	Collagen alpha-1(IX) chain (COL9A1) is one of the three alpha chains of type IX collagen, which is a minor (5-20%) collagen component of hyaline cartilage and a structural component of vitreous in the eye. COL9A1 has two isoforms through alternative splice. Type IX collagen is usually found in tissues containing type II collagen, a fibrillar collagen. Synthesis of COL9A1 chain is essential for assembly of type IX collagen molecules, a heterotrimeric molecule, and that lack of type IX
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collagen is associated with early onset osteoarthritis. Mutations in COL9A1 are associated with osteoarthritis in humans, multiple epiphyseal dysplasia, and Stickler syndrome, a disease characterized by ophthalmic, orofacial, articular, and auditory defects<sup>[1][2][3][4]</sup>.

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

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