Immunization Grade Human Type XI Collagen, Lyophilized

Catalog # 1085

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DESCRIPTION:	Type XI collagen is purified from pepsin-solubilized cartilage by repeat salt precipitation. Type XI collagen is one of three types of collagen which make up cartilage fibrils and consists of three α-chains, α1 (XI), α2 (XI), and α3 (XI), where α3 (XI) is homologous to the α1 (II) chain of type II collagen (1). NOTE: Type XI collagen shares significant similarities with type V collagen, which consists of α1 (V), α2 (V), and α3 (V) chains, but these alpha chains are not identical (2).
APPLICATION:	Use for immunization to generate antibodies and for studying the contribution of autoimmunity to type XI collagen in collagen-induced arthritis (CIA) and rheumatoid arthritis. NOTE: Antibodies against type II collagen partially cross-react to type XI collagen due to the homology between α3 (XI) and α1 (II).
QUANTITY:	1 mg
FORM:	Lyophilized powder
SOURCE:	Human sternal cartilage
MOLECULAR WEIGHT:	>300 kDa (Intact type XI collagen: approximately 360 kDa). By 6% gel analysis, type XI collagen is separated into three α-chains: α1(XI), α2(XI), and α3(XI) (1052, 1478, and 1060 amino acid residues) from the top of the gel.
PURITY:	>95% by SDS-PAGE gel analysis. No detectable type II or type IX collagen.
STORAGE:	4°C in the dark for lyophilized form and -20°C for solution form. Collagen may gradually degrade under neutral conditions.
STABILITY:	2 years
NOTES:	Type XI collagen can be dissolved at 4 mg/ml in an acidic solution such as 0.01-0.05M acetic acid, pH 3.0-3.3 or 0.15M citrate buffer, pH 3.6 by stirring at 4°C overnight. To neutralize the solution, add 10X neutral buffer containing 1.5M NaCl or dialyze the solution against a neutral buffer.

REFERENCES:

1. M. Cremer, M. Griffiths, K. Terato, A. Kang. *Autoimmunity* **20**:153-161 (1995)

2. R. Burgeson, D. Hollister. *BBRC* **87**:1124-31 (1979)

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