

Immunization Grade Human Type XI Collagen, Lyophilized

Catalog # 1085

For Research Use Only - Not Human or Therapeutic Use

DESCRIPTION:	<p>Type XI collagen is purified from pepsin-solubilized cartilage by repeat salt precipitation.</p> <p>Type XI collagen is one of three types of collagen which make up cartilage fibrils and consists of three α-chains, $\alpha 1$ (XI), $\alpha 2$ (XI), and $\alpha 3$ (XI), where $\alpha 3$ (XI) is homologous to the $\alpha 1$ (II) chain of type II collagen (1).</p> <p>NOTE: Type XI collagen shares significant similarities with type V collagen, which consists of $\alpha 1$ (V), $\alpha 2$ (V), and $\alpha 3$ (V) chains, but these alpha chains are not identical (2).</p>
APPLICATION:	<p>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.</p> <p>NOTE: Antibodies against type II collagen partially cross-react to type XI collagen due to the homology between $\alpha 3$ (XI) and $\alpha 1$ (II).</p>
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: $\alpha 1$ (XI), $\alpha 2$ (XI), and $\alpha 3$ (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:	<p>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.</p> <p>Chondrex, Inc. offers Cat # 9075, Collagen Solubilizing Buffer (0.05M acetic acid), as a companion product for dissolving or diluting collagen.</p>
REFERENCES:	<ol style="list-style-type: none">1. M. Cremer, M. Griffiths, K. Terato, A. Kang. <i>Autoimmunity</i> 20:153-161 (1995)2. R. Burgeson, D. Hollister. <i>BBRC</i> 87:1124-31 (1979)

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