

Immunization Grade Bovine Type XI Collagen, Lyophilized

Catalog # 1082

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 as an immunizing antigen to generate antibodies, an antigen to detect anti-type XI collagen antibodies in ELISA, or as a standard for gel analysis.</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:	5 mg
FORM:	Lyophilized powder
SOURCE:	Bovine articular cartilage
MOLECULAR WEIGHT:	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 A.A. residues) from the top of the gel.
PURITY:	>90% by SDS-PAGE gel analysis
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:	<ol style="list-style-type: none">1. K. von der Mark, M. van Menxel, H. Wiedemann, Isolation and characterization of new collagens from Bovine cartilage. <i>Eur. J. Biochem.</i> 124: 57-62 (1982)2. R. Burgeson, P. Hebda, N. Morris, D. Hollister, Human cartilage collagens. Comparison of cartilage collagens with human type V collagen. <i>J Biol Chem</i> 257, 7852-6 (1982).