

Immunization Grade Chick Type XI Collagen, Lyophilized

Catalog # 1081

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DESCRIPTION:	<p>Type XI collagen purified from pepsin-solubilized sternal cartilage by repeating salt precipitation. Type XI collagen is one of three types of collagen composing 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 $\alpha 1$ (II) chain of type II collagen (1).</p> <p>Note: Type XI collagen shares substantial similarity 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 to type II collagen partially cross-react to type XI collagen due to the homology of $\alpha 3$ (XI) to $\alpha 1$ (II).</p>
QUANTITY:	5 mg
FORM:	Lyophilized powder
SOURCE:	Chick
MOLECULAR WEIGHT:	Intact type XI collagen: approximately 360 Kd. 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
SOLUBILITY:	Type XI collagen can be dissolved at 4 mg/ml in 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.
STORAGE TEMPERATURE:	4°C in the dark for lyophilized form and -20°C for solution. Collagen might be gradually degraded under neutral conditions.
STABILITY:	2 years in lyophilized form
REFERENCES:	<ol style="list-style-type: none">1. Von der Mark K, Van Menxel M, Wiedemann H. Isolation and characterization of new collagens from chick cartilage. Eur. J. Biochem. 124: 57-62 (1982)2. Burgeson RE, Hebda PA, Morris NP and Hollister DW. Human cartilage collagens. Comparison of artilage collagens with human type V collagen.