

Immunization Grade Bovine Type IX Collagen, Lyophilized

Catalog # 1072

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DESCRIPTION:	Type IX collagen purified from pepsin-solubilized articular bovine cartilage by repeating salt precipitation. Type IX collagen is one of three types of collagen composing cartilage fibrils. Type IX collagen consists of three genetically distinct polypeptides, which are cross-linked by disulphide bonds, and is digested into two fragments, high molecular weight (HMW) and low molecular weight (LMW) fragments by pepsin-digestion for solubilization from tissues. The ratio of HMW and LMW varies between individual batches.
APPLICATION:	Use as an immunizing antigen to generate antibodies, as an ELISA antigen to detect anti-type IX collagen antibodies and as a standard for gel analysis. NOTE: Anti-type IX collagen antibodies which cross-react to autologous type IX collagen may contribute the induction of polyarthritides in certain strains of mice.
QUANTITY:	5 mg
FORM:	Lyophilized powder
SOURCE:	Bovine
MOLECULAR WEIGHT:	Intact type IX collagen: approximately 220 Kd, by 8% gel analysis under non-reduced conditions, pepsin-solubilized type IX collagen is a mixture of three HMW (150, 135 and 120 Kd) and one LMW (35 Kd) fragments.
PURITY:	>90% by SDS-PAGE
SOLUBILITY:	Type IX 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
REFERENCES:	<ol style="list-style-type: none">1. Shimokomaki M, Duance VC, Bailey AJ. FEBS Lett. 121:51-54 (1980)2. Reese CA, Wiedemann H, Kuhn K, Mayne R. Biochemistry: 21:826-830 (1982)3. vander Rest M, Mayne R, Ninomiya Y et al. J Biol Chem. 260:220-225 (1985)