

Immunization Grade Rat Type II Collagen, Lyophilized

Catalog # 20041

For Research Use Only - Not Human or Therapeutic Use

DESCRIPTION:	Highly purified type II collagen (treated with 3M guanidine, DEAE-cellulose, and Na ₂ HPO ₄)
APPLICATION:	Can be used for various purposes, such as a standard for collagen analysis by SDS-gel, substrate for MMP-1, MMP-8, and MMP-13, and as an antigen for immunizing animals for the induction of collagen-induced arthritis (CIA) in certain species and strains of experimental animals.
QUANTITY:	5 mg
FORM:	Lyophilized powder
SOURCE:	Rat sternal cartilage
MOLECULAR WEIGHT:	300 kDa
PURITY:	>99% by SDS-PAGE, free of pepsin and proteoglycans
STORAGE:	4°C in the dark
STABILITY:	2 years
NOTES:	<p>Soluble in acidic buffer (maximum 4 mg/ml), but difficult to dissolve in neutral buffer. In order to dissolve this product in a neutral buffer, first dissolve collagen in 0.01M or 0.05M acetic acid at 1-4 mg/ml and then add this collagen solution to the desired neutral buffer such as 2-10X Tris-NaCl (NaCl final concentration: 0.15-0.2M) or dialyze against 1X neutral buffer at 4°C.</p> <p>NOTE 1: To avoid fibril formation under neutral conditions, keep solution on ice.</p> <p>NOTE 2: The physicochemical property of type II collagen differs from type I collagen and type II collagen dissolved in a neutral buffer does not form a stable gel incubating at 37°C. In order to prepare a type II collagen gel, additional components such as type I collagen or other substances may be required.</p>
REFERENCES:	<p>R. Trelstad, <i>et al. Biochemistry</i> 9: 4993-4998 (1970)</p> <p>E. Miller, <i>Biochemistry</i> 10: 1652-1659 (1971)</p> <p>D. Trentham, <i>et al. J. Exp. Med.</i> 146: 857-868 (1977)</p> <p>P. Wooley, <i>et al. J. Immunology</i> 135: 2443-2451 (1985)</p>