

Immunization Grade Human Type II Collagen, Lyophilized

Catalog # 20051

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:	1 mg
FORM:	Lyophilized powder
SOURCE:	Human sternal cartilage
MOLECULAR WEIGHT:	300 Kd
PURITY:	>99% by SDS-PAGE, free of pepsin and proteoglycans
SOLUBILITY:	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, use 0.01M or 0.05M acetic acid to dissolve the collagen at 1-4 mg/mL and then add this collagen solution to a desired neutral buffer such as 2-10X Tris-NaCl (the final concentration of NaCl: 0.15-0.2M) or dialyze against 1X neutral buffer at 4°C. Note 1: To avoid fibril formation under neutral conditions, keep solution on ice. 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 stable gel with incubation at 37°C. In order to prepare a type II collagen gel, additional components such as type I collagen or other substances might be required.
STORAGE TEMPERATURE:	4°C in the dark
STABILITY:	2 years
REFERENCES:	Trelstad R. et al. Biochemistry 9: 4993-4998 (1970) Miller E.J. Biochemistry 10: 1652-1659 (1971) Trentham DE. et al. J. Exp. Med. 146: 857-868 (1977) Wooley PH. et al. J. Immunology 135: 2443-2451 (1985)