

Immunization Grade Canine Type I Collagen

Catalog # 1068

For Research Use Only - Not Human or Therapeutic Use

DESCRIPTION:	Highly purified canine type I collagen
APPLICATION:	Use for immunization to generate antibodies and for general purposes in biochemistry and bioengineering
QUANTITY:	1 mg
FORM:	Lyophilized powder
SOURCE:	Canine skin
MOLECULAR WEIGHT:	300 kDa (consists of two $\alpha 1(I)$ chains and one $\alpha 2(I)$ chain)
PURITY:	>90% by SDS-PAGE
SOLUBILITY:	<p>Type I collagen can be dissolved at 4 mg/ml in acidic buffer, 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. Due to the rigid and long triple helical conformation of the collagen molecule, any concentration higher than 4 mg/ml is highly viscous and hard to handle. However, higher concentrations can be prepared with acidic buffer by mechanical stirring to form bio-materials such as collagen sheets, sponges, or beads.</p> <p>In order to dissolve collagen in a neutral buffer, dissolve the collagen in 0.01M acetic acid, add 1/10 volume of a 10X concentrated neutral buffer containing 1.5M NaCl or dialyze the solution against a neutral buffer containing 0.15M NaCl. Keeping the concentration of NaCl between 0.15-0.2M is important to solubilize collagen. Always keep collagen solutions on ice. Do not leave the collagen solution in a neutral pH solution at room temperature as the solution will form a gel.</p>
STORAGE TEMPERATURE:	4°C in the dark. After reconstitution, store at -20°C. Collagen may degrade under neutral conditions.
STABILITY:	2 years