

## Immunization Grade Human Type I Collagen

Catalog # 1065

*For Research Use Only - Not Human or Therapeutic Use*

DESCRIPTION:	Highly purified human 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:	Human placenta
MOLECULAR WEIGHT:	300 Kd (consists of two $\alpha 1(I)$ chains and one $\alpha 2(I)$ chain)
PURITY:	>99% 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, the viscosity of collagen solution is extremely high at more than 4 mg/mL, and is hard to handle at higher concentrations. However, it can be mixed with acidic buffer by mechanical stirring at much higher concentrations for preparing bio-materials such as collagen sheets, sponges or beads.</p> <p>In order to dissolve collagen in neutral buffer, dissolve the collagen in 0.01-0.05M acetic acid, add it into a 2X neutral buffer, and then dilute with a 1X buffer. It is important to keep the concentration of NaCl between 0.15-0.2M. Always keep collagen solution on ice. Do not leave the neutral solution of collagen at room temperature, since collagen forms gel.</p>
STORAGE TEMPERATURE:	4°C in the dark for lyophilized form and -20°C for solution Collagen will gradually degrade under neutral conditions.
STABILITY:	2 years