

## Immunization Grade Rabbit Type | Collagen

Catalog # 1067

For Research Use Only - Not Human or Therapeutic Use

DESCRIPTION: Highly purified rabbit 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: Rabbit skin

MOLECULAR WEIGHT: 300 kDa (consists of two  $\alpha$ 1(I) chains and one  $\alpha$ 2(I) chain)

PURITY: >90% by SDS-PAGE

SOLUBILITY: 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.

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.

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

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 $\gamma$  chain (300 kDa)

β1 chain

β2 chain

 $\alpha$ 1 chain  $\alpha$ 2 chain

Figure 1

6% SDS-gel analysis of

rabbit type I collagen

non-reducing conditon

(2 μg/lane) under