

CollOvineTM

A New Standard for High Quality Collagen

Native collagen is resistant to the proteolytic digestion by enzymes other than collagenase. However, denatured collagen is susceptible to cleavage by proteases such as trypsin. The digestion susceptibility of collagen from different animal species from various vendors are compared with CollOvine here.

Methods

Bovine collagen at 3 mg/mL in 10 mM hydrochloric acid, extracted from bovine skin was obtained from Vendor B. Collagen at 1 mg/mL in 100 mM acetic acid, extracted from calf skin was obtained from Vendor C. Rat tail collagen at 3 mg/mL in 20 mM acetic acid was obtained from Vendor D. CollOvine produced from ovine skin at 3 mg/mL in 100 mM acetic acid was used in this study.

Each collagen sample was first adjusted to 1 mg/mL concentration by Hank's Balanced Salt Solution (HBSS). Ten microliters of the 1 mg/mL collagen samples were incubated with 5 μ g of trypsin at 35°C for 1 hour. The collagen samples with or without trypsin digestion were analyzed by SDS-PAGE.



Results

The SDS-PAGE analysis of the collagen samples with or without trypsin incubation (**Figure 1**) shows that CollOvine is resistant to digestion, while the other collagen samples obtained from the other vendors were all susceptible to trypsin digestion. The collagen from Vendor C also does not appear to contain the amount of collagen stated. These results suggest that the purification process of CollOvine conserves the native structure of the collagen.