

PRO-2003 Atelocollagen, Ultrapure, Type I, Porcine
Enzymatic extraction, Dialyzed, Lyophilized

CAS: 9007-34-5

PRODUCT DESCRIPTION

Ultrapure atelocollagen (PRO-2003) is characterized by rich and **ultra purified Type I collagen** content in a regular fibril-like configuration that retains its superior functionality and **structural properties**. PRO-2003 is extracted from porcine tendon tissue sourced from **strictly controlled herds**, complying with all EU and national regulations. The proprietary pepsin enzyme-based extraction removes telopeptides at the non-helical N and C termini, resulting in a triple helix configuration that exhibits **reduced immunogenicity**.

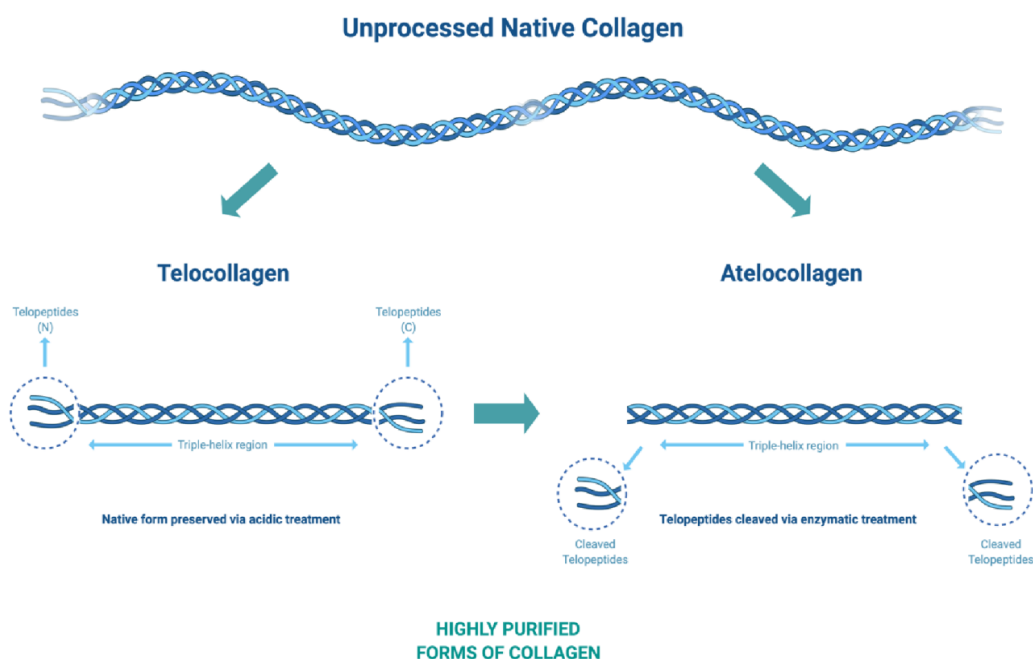


Figure 1. Enzyme-based extraction process removes the telopeptides resulting in atelocollagen (PRO-2003) that exhibits reduced immunogenicity.

Package size	10 or 20 mg in vials
Appearance	White/Off-white powder
Source	Porcine tendon
Collagen purity	> 97% (by SDS/Western blotting)
Amino Acid Analysis	Typical/characteristic profile
Electrophoretic Pattern	Characteristic pattern, visible α , β , γ bands
Sterility/Microbiological testing	Pass (0 cfu/g)
Heavy metals analysis	< 1 ppm
Sterilization method	Produced under strict aseptic conditions
Cell Attachment Assay	Pass
Cell Toxicity Assay	Pass

— APPEARANCE

- PRO-2003 is provided as freeze-dried atelocollagen (in vials of 10 or 20 mg), allowing for an extended shelf life, in a user-friendly packaging.

— STORAGE REQUIREMENTS

- **Long term:** storage of lyophilized product at -20°C is recommended, with a storage life of 24 months from the date of manufacturing.
- **Short term:** storage of reconstituted product at 2-8°C is recommended, for up to 6 months from the date of reconstitution.

— RECONSTITUTION

- PRO-2003 may be reconstituted to a concentration of 0.5 - 2.0 mg/ml when used as a coating agent and as chemoattractant.
- For the production of collagen gels, a concentration of 3.0 mg/ml may be used (slow gelation assays - cells will sink to the bottom of the gel).
- To reconstitute, add 0.1M acetic acid or 0.01M HCl to the vial and let it stand without stirring. Warming up to 25°C may be necessary for lyophilized atelocollagen to dissolve completely (clear solution).

— STERILITY

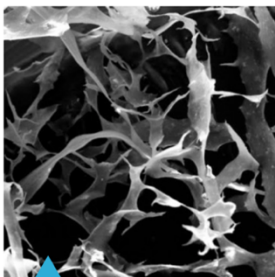
- PRO-2003 can be filter-sterilized at a concentration of 0.5 – 2.0 mg/ml (Note: protein loss has been reported during filtration).
- Alternatively, 0.1% atelocollagen solution can be sterilized in the presence of chloroform layering (10% v/v) overnight.
- To avoid contamination, always use aseptic techniques during handling.

— APPLICATIONS

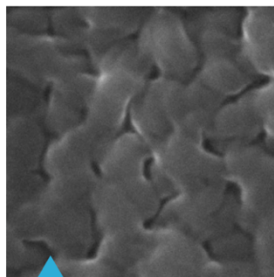
- Extracted atelocollagen is biocompatible and biodegradable and thus suitable for a wide range of research applications.
- PRO-2003 is ideal for 3D bioprinting, cell cultures, functional assays and *in vitro/in vivo* applications such as wound healing, tissue regeneration, drug delivery.

— INTENDED USE

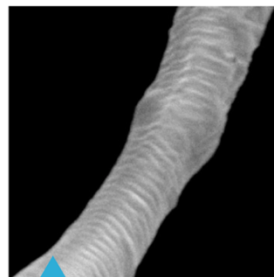
- PRO-2003 is intended for research use only and for *in vitro* or *in vivo* R&D applications. It is not intended for diagnostic, therapeutic or any other clinical uses.
- The expiration date is printed on the product label and is valid when product is used and stored as directed.
- Optimal conditions must be determined for each application/assay.



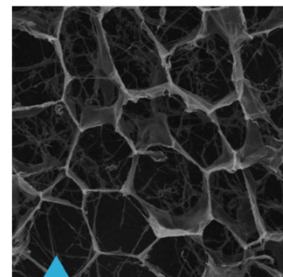
Lyophilized collagen - exhibits structural rigidity and stability



Collagen for gel formation, ideal for cell culture



Collagen fibrils retain mechanical strength and elasticity



Pore sizes ideal for tissue engineering and drug delivery