

VitroCol®

Solution, 3 mg/mL

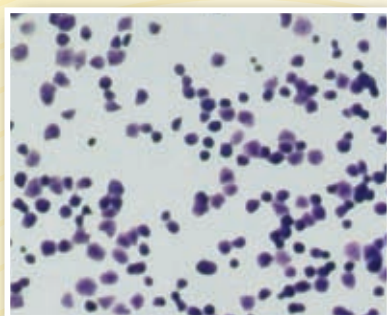
Purified Human Collagen

For Tissue Engineering Research,
Cell Culture and Biochemistry

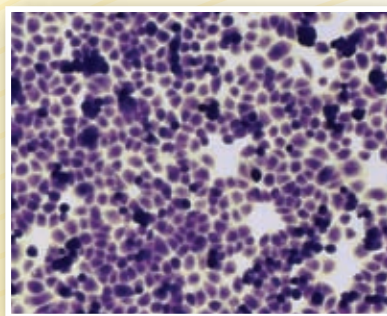
VitroCol® is the Acceptable Standard for:

- ▶ Purity
- ▶ Functionality
- ▶ Reproducibility
- ▶ Lot-to-Lot Consistency

Bioassay Results Using
Vero Epithelial Cells (10X)



[Without VitroCol®]



[With VitroCol®]



VitroCol®

Solution, 3 mg/mL

Purified Human Collagen

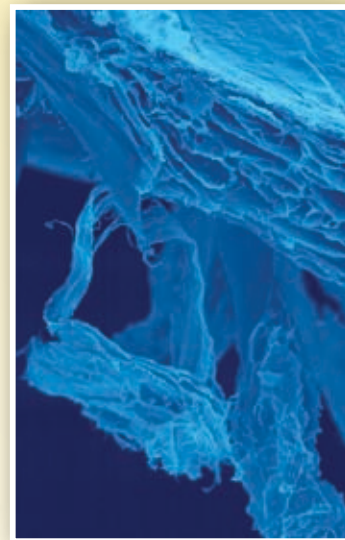
VitroCol® collagen is the first widely available, naturally produced purified human collagen for research purposes. VitroCol® sets the standard for purity (> 99.9% collagen content), functionality and represents the only native-like human collagen offered.

VitroCol® collagen is naturally secreted from human neo-natal fibroblast cells. The human fibroblasts are cultured in optimal conditions allowing the fibroblast to naturally and efficiently secrete extracellular matrix. The extracellular matrix is then processed and purified to yield the naturally produced human collagen.

VitroCol® collagen is approximately 97% Type I human collagen with the remainder being comprised of Type III collagen. It contains a high monomer content as measured by gel permeation chromatography.

VitroCol® collagen solution, Catalog No. 5007-A, is supplied at approximately a 3 mg/mL concentration of human collagen. The concentration for each specific lot is provided on a Certificate of Analysis and on the product label. This product is supplied as a sterile solution. VitroCol® is especially ideal for human cell culture systems when coating of surfaces or forming a gel.

VitroCol® collagen lyophilized powder, Catalog No. 5008, is supplied as a lyophilized powder with 15 mg of human collagen. When reconstituted with 5 mL of sterile 0.01 N HCl, a concentration of approximately 3 mg/mL is achieved. VitroCol® is especially ideal for human cell culture systems when coating of surfaces. This product is *not* recommended for the formation of a solid gel. This product is supplied as a sterile, lyophilized powder.



300X Magnification Photograph of human ExtraCellular Matrix (hECM) produced by human neo-natal fibroblasts

APPLICATIONS

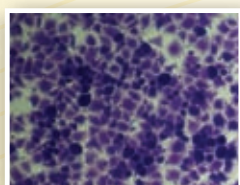
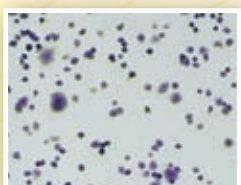
Collagen has a wide variety of uses. Below are just a few of the many applications for collagen.

- Tissue engineering research
- Wound healing constructs
- Coatings
- Solid free-form fabrications
- Electrospinning
- Oriented fibril surfaces
- 3D porous structures
- Gels
- In vitro research
Nerve Repair, Hemostats, Sealants, Coils, Sponges, Spheres/Beads, Ligaments, Strings, Tubes/Cylinders, Films
- Useful with a vast number of cell types

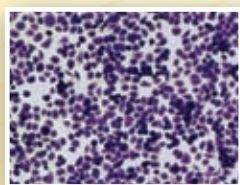
VitroCol® is for research and development uses only, not for human use.

[Without VitroCol®]

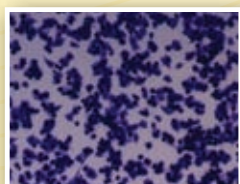
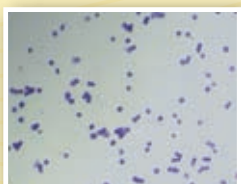
[With VitroCol®]



Human Dermal Fibroblasts (10X)



MDCK Epithelial Cells (10X)



MCF-7 Breast Cancer Cells (10X)

CHARACTERISTICS

Parameter, Testing, and Method	VitroCol® Collagen Solution Catalog Number 5007-A	VitroCol® Collagen Lyophilized Catalog Number 5008
Form	Solution	Lyophilized Powder
Package Size	20 mL	15 mg
Storage Temperature	2 - 10 °C	-20 °C prior to reconstitution 2 to 10 °C after reconstitution
Sterilization Method	Filtration	Filtration
Sterility	No Growth	No Growth
Endotoxin (LAL)	≤ 1.0 EU/mL	≤ 1.0 EU/mL
Polyacrylamide Gel Electrophoresis (SDS-PAGE)	> 85% collagen contained within alpha, beta, and gamma bands < 15% collagen contained with bands traveling faster than alpha	> 85% collagen contained within alpha, beta, and gamma bands < 15% collagen contained with bands traveling faster than alpha
Cell Attachment Assay	Pass	Pass
Source	Human, Neo-Natal, Fibroblasts	Human, Neo-Natal, Fibroblasts
Expiration Date	Listed on product label and Certificate of Analysis	Listed on product label and Certificate of Analysis
Shelf Life after Reconstitution	N/A	3 months
Concentration (Biuret Protein Determination)	2.9 - 3.2 mg/mL	2.9 - 3.2 mg/mL (Prior to Lyophilization)
pH	Approximately pH 2	Approximately pH 2 (Prior to Lyophilization)
Gel Time (Gel Time Assay)	≤ 90 minutes	40 minutes (Prior to Lyophilization)
Fibrillogenesis (Fibril Formation)	> 0.5 Absorbance Units	> 0.5 Absorbance Units (Prior to Lyophilization)

ORDERING INFORMATION

VitroCol® Solution 3 mg/mL - Catalog No. 5007-A - Package Size 20 mL

VitroCol® Lyophilized 15 mg - Catalog No. 5008 - Package Size 15 mg



Advanced BioMatrix, Inc. • P.O. Box 502403 • San Diego, CA 92150-2403
1.800.883.8220 (US) • 1.858.451.2421 (Outside US) • 1.510.217.3452 (Fax)
www.AdvancedBioMatrix.com • Support@AdvancedBioMatrix.com