

Proliferative Bioscaffold

Symphony is the first composite design that brings together the regenerative properties of extracellular matrix (ECM) technology and hyaluronic acid to help advance wound closure.¹



Advanced composite cellular and tissue product (CTP), comprising three layers of AROA ECM, with a layer of hyaluronic acid²

AROA ECM:	Ŧ	Hyaluronic Acid	8	Symphony's key
 An optimal mix of structure and biology^{3,4} Broad-spectrum MMP modulation⁵ 		 High-quality hyaluronic acid provides additional wound healing biology and ensures moisture balance¹ 		components (hyaluronic acid + AROA ECM) act synergistically to drive wound closure ¹
 Basement membrane components to aid revascularization and epithelialization^{3,6} 				 Enhances keratinocyte proliferation Enhances keratinocyte migration

Easy handling: Simple hydration and conforms well to wound bed²



Proliferative Bioscaffold

What is Symphony?

Symphony is an advanced composite cellular and tissue product (CTP), comprising three layers of AROA ECM, with a layer of hyaluronic acid.²



Symphony is indicated for use in the management of the following wounds²:

- Partial and full-thickness wounds
- Pressure ulcers
- Venous ulcers
- Diabetic ulcers
- Chronic vascular ulcers
- Tunneled / Undermined wounds
- Surgical wounds (donor sites/grafts, post-Moh's surgery, post-laser surgery, podiatric, wound dehiscence)
- Trauma wounds (abrasions, lacerations, seconddegree burns, and skin tears)
- Draining wounds



Proliferative Bioscaffold

AROA ECM offers an optimal bioscaffold structure^{3,4}:

- The source tissue is minimally processed to retain the innate porosity & structure of the ovine forestomach source tissue enabling rapid host cell infiltration and proliferation
- **AROA ECM** contains residual vascular channels & endothelial basement membrane which facilitates the establishment of a dense capillary network to aid tissue regeneration.



- Provides broad spectrum protease modulation, restoring balance and reducing inflammation
- Contains over 150+ naturally occurring ECM proteins known to be important in tissue regeneration, including cytokines, chemokines and growth factors.
- Includes basement membrane components to support the advancement of endothelial and epithelial cells.



AROA ECM aids formation of organized functional tissue:

Components in the **AROA ECM**have been found to attract
mesenchymal stem cells
facilitating development of
organized, functional tissue.⁷

Why add a layer of Hyaluronic Acid (HA)?

- HA is a naturally occurring component of tissue ECM and plays an important role in accelerating soft tissue repair, including angiogenesis, cell proliferation and migration.¹
- HA has been shown to reduce wound healing times and improve the quality of the new tissue.⁸
- HA is extremely hydrophilic and can sequester ~1000 times its weight in water.⁹
- The addition of high-quality HA optimizes moisture balance to accelerate healing.⁸
- Especially useful where there is risk of dehydration of the device, or the underlying structures (bone and tendon).

Symphony's key components (AROA ECM + hyaluronic acid) act synergistically to enhance keratinocyte proliferation and migration to help drive wound closure¹:

The addition of HA to Symphony devices significantly increases keratinocyte proliferation relative to **AROA ECM** alone.

The inclusion of HA into Symphony also significantly increased (p<0.001) keratinocyte migration over ECM-alone.¹

In vitro human keratinocyte proliferation (quantification of average % change in proliferation relative to negative control).



Proliferative Bioscaffold

Symphony's Multi-layer Design

Chemical crosslinking has been shown to invoke a negative host inflammatory response. **Symphony** is thoughtfully engineered with layers of noncrosslinked **AROA ECM** plus HA^{1.6} **Symphony's** unique engineered structure enables rapid 3-dimensional cell migration & proliferation to help drive wound closure, while allowing exudate flow¹ Multiple layers add more structure and biology, and enhances biomechanical strength¹

Works synergistically with other AROA ECM products to achieve wound closure:

Clinical studies have shown improved clinical outcomes and health economics by using **Endoform™** products prior to CTP's.¹⁰ Consider use of **Endoform™ Antimicrobial** and **Endoform™ Natural** as part of your wound bed preparation prior to wound closure with **Symphony**.



Ordering information

Symphony™				
Stock no.	Product Size (L x W)	Quantity/Box		
CM04HA0202	2.5 x 2.5 cm	1		
CM04HA0505	5 x 5 cm	1		



Smith MJ, et al. Further structural characterization of ovine forestomach matrix and multi-layered extracellular matrix composites for soft tissue repair. Journal of Biomaterials Applications. 2022 Jan;36(6): 996-1010.
 Symphony Instruction for Use (IFU).
 Dempsey SG et al. Functional Insights from the Proteomic Inventory of Ovine Forestomach Matrix. J Proteome Res. 2019 Apr 5;18(4):1657-1668.
 Badylak SF. Xenogeneic extracellular matrix as a scaffold for tissue reconstruction. Transpl Immunol. 2004 Apr;12(3-4):367-77.
 Negron L, et al. Ovine forestomach matrix biomaterial is a broad spectrum inhibitor of matrix metalloproteinases and neutrophil elastase. Int Wound J. 2014 Aug;18(4):392-7.
 Negron L, et al. Ovine forestomach. Biomaterial cerviced from ovine forestomach. Biomaterial active drive from ovine forestomach. Biomaterial active drive from ovine forestomach. Biomaterial: 2010; 31(6): 4517-4529.
 Dempsey SG, et al. A novel chemotactic factor derived from the extracellular matrix protein decorin recruits mesenchymal stromal cells in vitro and in vivo. PLoS One, 2020 Jul 13;15(7):e0235784.
 Proteomic of hyaluronic acid for the synthesis of derivatives for a broad range of biomedical applications. Carbohydr Polym 201; 85:469-489.
 Foresta et al. Use of an Ovine Collagen Dressing with Intact Extracellular Matrix to Improve Wound Closure Times and Reduce Expenditures in a US Military Veteran Hospital Outpatient Wound Center. Surg Technol Int. 2017 Jul 25;30:61-69. PMID: 28537645.

RX Only. Prior to use, be sure to read the entire Instructions For Use package insert supplied with the product. Product information contained herein is for US customers.

For more information on Symphony™, please call 1-877-627-6224 or email customerservice@aroabio.com.



Manufactured for: AROA BIOSURGERY INC

7220 Trade Street, Suite 306, San Diego, CA 92121 1-877-627-6224

www.aroabio.com

MKT.1748.01 | ©June 2022

AROA™, Symphony™, Endoform™ Antimicrobial, Endoform™ Natural and AROA ECM™ are trademarks of Aroa Biosurgery Limited.