

Together. All the way™

Introducing ultra-rapid warming of blastocysts

Maintain stable results and save 8-11 minutes per blastocyst



The 1st
FDA cleared
product



Improve workflow without compromising clinical outcomes

While vitrification revolutionised cryopreservation in IVF, it is still labour-intensive. Consequently, users have been seeking to streamline the workflow with a consistent, efficient procedure.

Ultra-fast warming of blastocysts

Recently, the golden standard of using a multi-step warming process has been challenged. Several publications have shown that blastocysts can be warmed in a much faster way, in just one warming step.

The studies demonstrate that single-step ultra-fast warming is comparable to multi-step standard warming

in terms of survival, re-expansion, and clinical outcomes with the added benefit of saving time^{1, 2, 3}.

In addition, studies present that blastocysts warmed in a low sucrose medium show a tendency for faster re-expansion⁴ and shorter time to hatching⁵.



Works with all cleared vitrification solutions and devices.

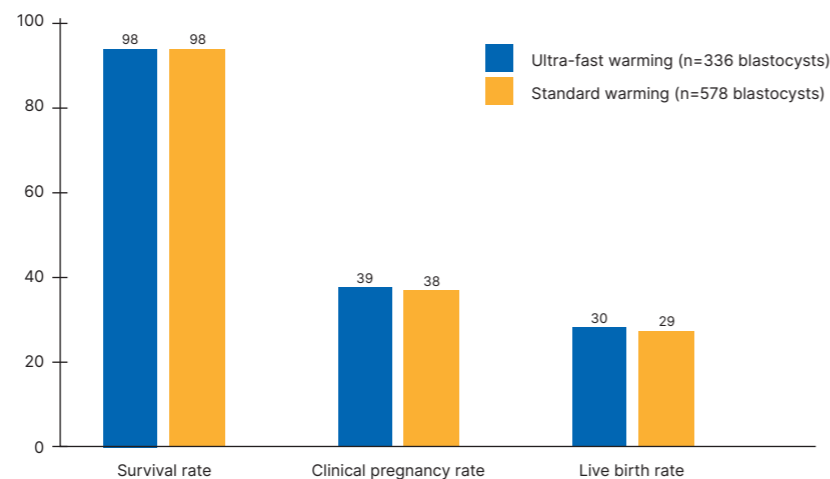
New product innovation with an ultra-fast warming protocol

Ultra RapidWarm™ Blast is a single medium for warming of vitrified human blastocyst-stage embryos. The medium contains 0.25 M sucrose to remove membrane-permeable cryoprotectants and gradually rehydrate the cells.

Ultra RapidWarm Blast contains 20 ml of warming solution, delivered in 4 bottles of 5 ml. Each bottle can be used for 2 weeks after first opening, if using aseptic technique and minimising the time outside the refrigerator.

Clinical evidence

Clinical results from a study using Vitrolife warming media. Comparison of the ultra-fast warming protocol (0.25 M sucrose) with standard warming protocol⁶.



Save 8-11 min



A game-changing warming procedure

- Save 8-11 minutes per blastocyst^{7,8,9}
- Maintain safety and efficacy¹⁰
- More robust protocol with reduced handling risk
- Better workflow in the lab, giving time back to the staff

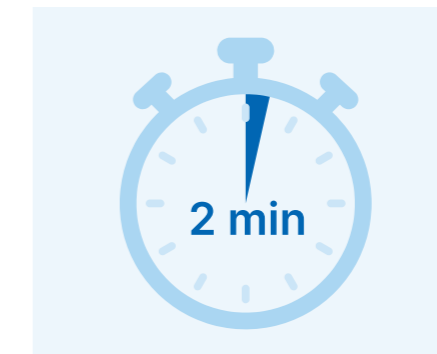
How to warm blastocysts with Ultra RapidWarm Blast

Preparation



Place at least 0.5 ml and up to 1 ml of warming solution into a dish and warm to 37 °C.

Warming



Leave the blastocyst in the solution for 2 minutes.

Washing



Wash the blastocyst several times with culture medium, or transfer medium such as EmbryoGlue®, then incubate until further use.

*"The implementation of short rehydration during warming in our blastocyst cryo-preservation program was easy to implement and is a game changer in many ways: **Foremost it is a time saver; supporting an even more efficient workflow in our daily schedule.***

On top of this, allowing blastocysts to reach their physiological intracellular milieu after fast warming allows them to regain their cellular functionality sooner, which is reflected in better outcomes such as higher ongoing pregnancy and, lower miscarriage rates¹¹."

Juergen Liebermann, PhD, HCLD
Director Laboratories
Fertility Center of Illinois, USA

"As time-efficiency is a critical parameter in busy IVF labs, the recent onset of the ultra-fast warming procedure was definitely a great opportunity that we decided to explore immediately.

*This was obviously extremely simple to implement, and it rapidly confirmed its expected capacity to **reduce time** and to ensure smooth workflow, while providing **perfectly stable and maintained clinical outcomes**, as confirmed by more than 2 500 warmed blastocysts¹¹."*

Professor Thomas Freour
Head of Infertility Department & ART Centre
University Hospital of Nantes, France

High lot-to-lot consistency ensures high performance

Vitrolife's Mouse Embryo Assay (MEA) go beyond regulatory demands, using multiple endpoint assessments, including blastocyst cell count, with narrow acceptance levels to ensure high performance and the best results for the customers.

Vitrolife has unique competence in testing, which is performed in-house to maintain full control with traceability of each released product.

Maximum support



Based on the Vitrolife media with amino acids and energy substrates that support metabolism.



MOPS buffered to stabilise pH during handling.



High levels of hyaluronan and HSA provide additional protection.

Product specification

REF	10150 Ultra RapidWarm™ Blast
Size	4 × 5 ml
Sucrose	0.25 M
Application	Ready to use after warming to 37 °C in ambient atmosphere.
Storage	Media bottles can be used for up to 2 weeks after first opening. Use aseptic technique and minimise the time outside the refrigerator.
Quality control	pH Osmolality Sterility Bacterial endotoxins MEA (one-cell): Blastocyst formation as well as cell count



Visit vitrolife.com for more educational material such as e-learning courses, instructional movies, blog posts, short protocols, clinical evidence, and much more.

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References: **1.** Manns et al. Validation of a New Ultra-Fast Blastocyst Warming Technique Reduces Warming Times to 1 minute and Yields Similar Survival and Re Expansion Compared to Blastocysts Warmed Using a Standard Method. ASRM 2021. **2.** Manns et al. Clinical validation of a new, ultrafast warming protocol, resulting in equivalent implantation rates and significant time savings versus routine warming protocol, a prospective randomized control. ASRM 2022. **3.** Taylor et al. Ultrafast warming protocol demonstrates similar outcomes and significantly decreases embryology workload compared to standard warming protocols, a randomized control trial with euploid blastocysts. ASRM 2022. **4.** Gunst & Ahlström, Multicenter preclinical validation of warming procedures for human blastocysts involving a short exposure to a single sucrose solution shows promising survival, re-expansion and continued development, BSRM 2022. **5.** Liebermann et al. Rapid warming of human blastocysts: Is 1M sucrose the only choice? 65th AAB Conference 2023. **6.** Lammers et al. Ultra-fast warming procedure of vitrified blastocysts results in maintained embryology and clinical outcomes, Reproductive Science (2024), manuscript accepted for publication. **7.** Package insert RapidWarm Blast REF 26086, www.vitrolife.com. **8.** Package Insert Brand A. **9.** Package Insert Brand B. **10.** Freour et al. Quick as lightning, a French 12-month experience of ultrafast blastocyst warming on more than 1 000 single frozen-thawed blastocysts cycles, ASRM 2024. **11.** Liebermann et al. Fast and furious: pregnancy outcome with one-step rehydration in the warming protocol for human blastocysts, Reproductive BioMedicine Online (2023), volume 48, Issue 4, 10373, April 2024.