

ESCO
MEDICAL

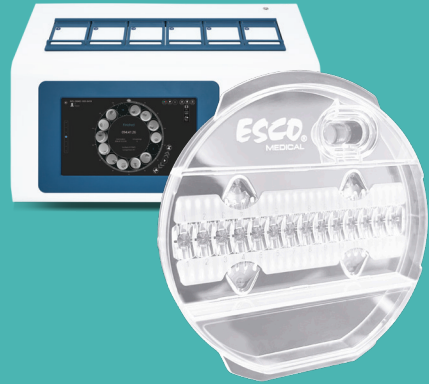


CultureCoin®

CultureCoin[®]

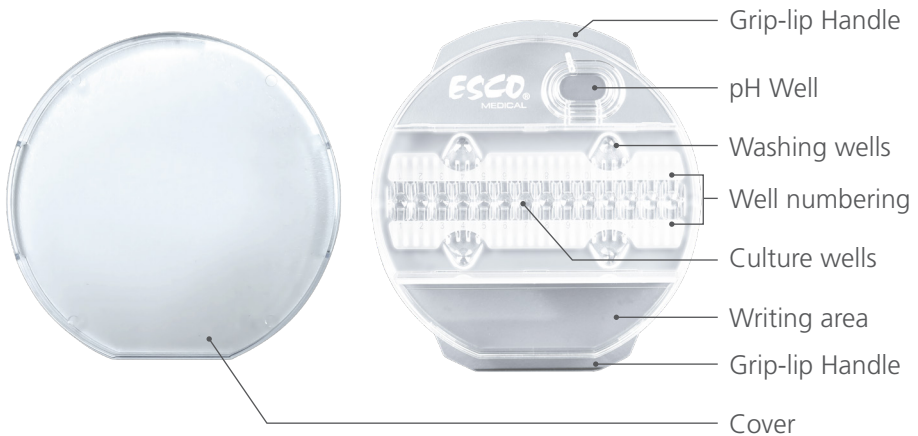
for MIRI[®] TL

The Esco Medical CultureCoin[®] is a sterile and single-use culture vessel designed specifically for use in IVF. It can hold up to 14 embryos in a centrally-placed line of culture wells. The culture well features an optically clear area of 300µm where the embryo is located, which is optimized for microscopy. The culture wells are numbered from 1 to 14 for easy identification by the user. Additionally, each culture well comes with two washing wells that can be used for cell manipulations, washing media, or replacement media.



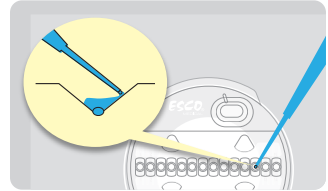
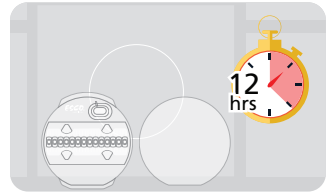
The lid is mounted inside the circumference of the dish covering the culture area completely – the user will only grab the dish during handling and not risk losing the dish by holding on to the lid only – as can be the case on all traditionally designed dishes. A large well is provided outside the culture area for pH measuring without affecting the cultured samples. The dish has a flat bottom so it is ideal for heat transfer from below.


Parts of the CultureCoin[®]

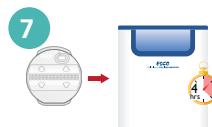


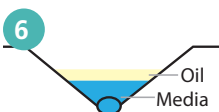
Directions for Use


- 1 Unpack both the cover and dish in an aseptic environment.
- 2 Leave the dishes with the covers on for off-gassing in the aseptic environment for 12 hours (overnight).
- 3 Warm the dishes on a heated stage or an incubator before filling them with media.
- 4 Fill all the culture wells with approximately 25 μ l of precultured equilibrated culture media in an aseptic environment. Filling of the washing wells is optional. One washing well contain approximately 23 μ l. They can be used for cell manipulations, washing media or replacement media.

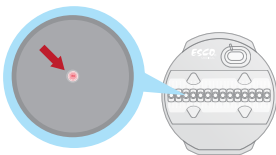


- 5  Check under a microscope for any visible air bubbles and remove them with a stripper tip.

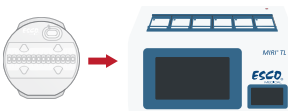
- 7  Put the cover on the dish and leave it for 4 hours of equilibration in the CO₂ incubator (humidified incubator is preferable).

- 6  Fill the oil area with a confluent layer of suitable mineral or Paraffin oil to cover the culture media. The recommended amount is 6 ml. Do not overfill.

- 8  Check for air bubbles in the culture wells after the equilibration. Remove any bubbles with a stripper tip.



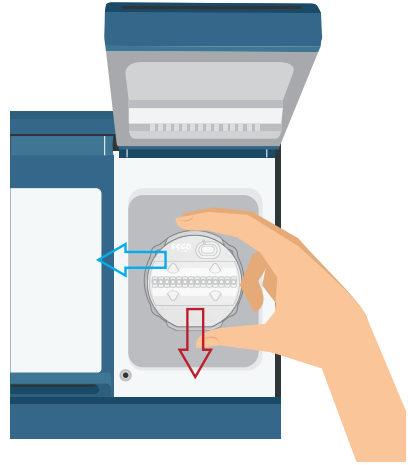
- 9 Load the embryos in the culture wells. Make sure the embryos are located very precisely in the center of the culturing well and not on the side slope.



- 10 Optionally fill the pH well with culture media up to the lowest step (recommended volume – 350 μ l) of the pH well and cover it with an oil overlay (recommended volume – 150 μ l).
- 11 Put the CultureCoin® cover and incubate the dish in the MIRI® TL multiroom IVF incubator.

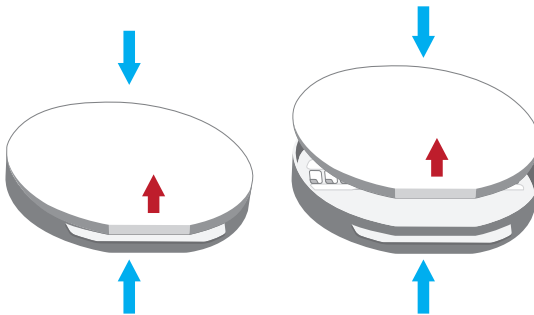
CultureCoin® Placement in the Compartment:

Before starting the time-lapse, it is essential to place the CultureCoin® in the compartment properly. To ensure the correct position of the CultureCoin® (so that the camera can identify all the wells), place the CultureCoin® in its place and secure its position by pushing it **downwards and towards you**, then to the **left edge**.



Removing the CultureCoin® Lid:

CultureCoin® lid does not have a lot of free movement on the dish while it is closed, but the lid may move slightly during transportation. The lid can rotate a bit on the CultureCoin® and get stuck on the dish edges. As a result, it may be harder to open it. In such a case, there is a specific technique for the CultureCoin® lid opening. **Hold the dish on the grip-lip and lift the cover from the cut edge.**



CultureCoin® lid opening. Do not twist the lid of the CultureCoin®, because it will be locked, and it will be even harder to open it.

pH measuring

Validating the pH of the culture media should be a standard procedure. The CultureCoin® has a large well outside the culturing area. It makes it possible to make spot checks safely and conveniently on the pH level without disturbing culture wells.

General Specifications



CultureCoin®

Technical specifications	CultureCoin®
Overall dimensions (Diameter x Height)	Ø 71 x 10 mm
Weight empty	13.8 grams
Material	Styrene Methyl Methacrylate (SMMA)
Incubation Temperature Range	28.7 - 40.0 °C
Incubation CO ₂ Range	1.9 - 10.0%
Incubation O ₂ Range	4.9 – 20.0%
Sterilization Method	Gamma Irradiation
Lifetime	2 years
Biocompatibility Tests	<ol style="list-style-type: none">1. Mouse Embryo Assay (MEA) test with thawed 1-cell mouse embryos. Acceptance criteria: at least 80% of embryos developed to the blastocyst stage.2. Limulus Amebocyte Lysate (LAL) test. Acceptance criteria: < 20 EU/ device.

Ordering Information

ITEM CODE	MODEL CODE	DESCRIPTION
1320088	MRI-CC	CultureCoin® for Time-Lapse of 14 embryos



MIRI[®] Time-Lapse Incubator



The MIRI[®] Time-Lapse Incubator is a multiroom incubator with a built-in camera and microscope. Designed and manufactured in EU, the MIRI[®] Time-Lapse Incubator provides high quality time-lapse images of embryos developing in “real-time” without having to remove the embryos from the safety of the incubation chamber for manual microscopy. Time-lapse embryo monitoring provides detailed morphokinetic data throughout embryo development, which is not available on routine spot microscopic evaluation. This allows all important events to be observed, helping to identify healthy embryos with the highest probability of implantation, with the aim of achieving higher pregnancy rates.

The MIRI[®] TL makes use of the CultureCoin[®], a specifically designed culture dish, that allows each chamber to culture 14 embryos, giving a total capacity of 84 embryos for the TL6 and 168 embryos for the TL12.

Key Features



Heated Lid

Prevents condensation and enhances temperature regulation/recovery.



Time-Lapse Monitoring

As images are digitally-stored, a video can be generated to enable a more objective and reliable grading of embryos which enables a better embryo development and implantation potential prediction.



Multiroom System

The MIRI[®] TL6 and MIRI[®] TL12 have multiple independent chambers with very stable environments, allowing embryologist to culture embryos from individual patients in individual chambers.



Direct Heat Transfer

Provides superior temperature stability.



Touch Screen Control Panel

Allow for an easy and intuitive operation of the system.



CultureCoin®

The MIRI® TL utilises a specifically designed culture dish for optimal embryo culturing and observation.



Advanced CO₂ + O₂ Regulation

The built-in gas mixer and the high-performance CO₂ and O₂ sensors allow for the accurate control of gas phase composition in the chambers.



High Quality Recirculated Airstream

The MIRI® TL is equipped with VOC/HEPA filter to help eliminate harmful VOCs and particulates.



Easy Parameter Validation

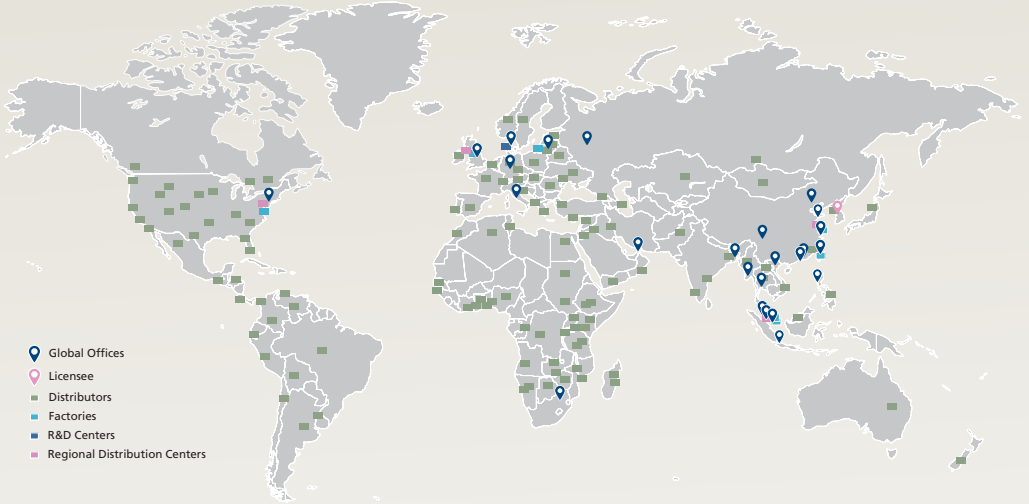
The MIRI® TL can be connected to a MIRI® GA, a Gas and Temperature Validation unit, for continuous external validation of both gas and temperature.



Sophisticated Tools for Annotation

MIRI® TL Viewer Software allows users to customize each embryo observation event freely.

ESCO LIFESCIENCES GROUP



- Global Offices
- Licensee
- Distributors
- Factories
- R&D Centers
- Regional Distribution Centers

Esco Medical Products

- MIRI® Multiroom Incubator
- MIRI® Humidity Multiroom Incubator
- MIRI® II-12 Multiroom Incubator
- Mini MIRI® Dry Incubator
- Mini MIRI® Humidity Incubator
- MIRI® TL6 Time-Lapse Incubator
- MIRI® TL12 Time-Lapse Incubator
- Multi-Zone ART Workstation
- Airstream® Laminar Flow Bench
- MIRI® Evidence RFID Traceability System
- CelCulture® CO₂ Incubator
- MIRI® GA
(Gas and Temperature Validation Unit)
- MIRI® AVT
- CultureCoin®

Infertility is a problem that has a significant social, psychological, and economic impact on afflicted individuals and couples. It is a global concern that knows no race or creed. It has been estimated that 1 in 6 couples struggle with infertility at least once in their lifetime.

Esco Medical is one of the divisions of the Esco Lifesciences Group. We provide innovative technological solutions for fertility clinics and laboratories. We aim to become the leading manufacturer of high-quality equipment such as long-term embryo incubators, ART workstations, anti-vibration tables, and time-lapse incubators.

Our products are designed with the Silent Embryo Hypothesis as a guiding principle. The Silent Embryo Hypothesis states that the less disturbed an embryo can remain, the better its developmental potential will be. Most of our products are designed in Denmark and made in the EU. Our primary focus is to increase pregnancy success rates and patient satisfaction.



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