KITAZATO®

PRODUCT CATALOGUE

HYPURE® OILS & MICRO TOOLS

Quality Results
for life

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HYPURE® OILS & MICRO TOOLS

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HYPURE® OILS

HYPURE® OILS:

Maintenance of a stable culture environment is advantageous when attempting to minimize environmental perturbations within the culture system that may negatively impact the developing embryo.

- **Pre-washed paraffin oils are used as protective barrier** to prevent the quick evaporation of the medium and to keep specimens safe from external contaminants during in-vitro culture.

- **Hypure® Oils, the pre-washed paraffin oils with less endotoxin levels in the market,** play an important role maintaining the stability of the embryo culture system in terms of temperature, pH and osmolality.

Paraffin or Mineral Oil?

Mineral and paraffin oils are commonly used to overlay IVF media to maintain their stability throughout embryo culture, but their quality can vary greatly.

Mineral oil is less refined than paraffin oil, so, it contains more unsaturated bonds and is more sensitive to photooxidation and peroxidation[1].

High levels of peroxides in oils may have a detrimental effect on fertilization and embryo development, so the choice of culture oil is extremely important as it has a direct effect on clinical outcomes.

Kitazato Hypure® oil is a high-quality paraffin oil.
It is pre-washed with ultra-pure water to reduce toxicity and remove endotoxins, therefore improving your clinical outcomes.
Furthermore, washing and saturating oils with ultra-pure water reduces the evaporation rate of the media and the consequent change in osmolality.

1. Elder Key and Bw 2015.

HYPURE® OIL: **HEAVY / LIGHT**

Hypure® Oils are available with different density and viscosity to better suit laboratory needs. Since both are highly efficient in maintaining media stability, each laboratory could be able to make its own choice of which oil to use for each procedure.

HYPURE® OIL: **LIGHT**

Hypure® Oil Light's fluidity provides an easier pippeting experience. Culture dishes need to equilibrate before use and with light oil this is achieved quicker than with heavy oils, due to a lighter viscosity and density.

Suited to be stored at room temperature, Hypure® Oil Light allows reaching an incubation temperature and equilibration in a shorter period of time.

HYPURE® OIL: **HEAVY**

Hypure® Oil Heavy is the perfect choice for processes that require an oil overlay that allows easy handling of the culture dishes with a reduced risk of spills or droplet mixing.

Due to its higher density and viscosity, Hypure® Oil Heavy **provides extensive protection and insulation of gametes and embryos,** especially during an extended culture or when using time lapse and/or dry incubators.

Main characteristics

- Pharmaceutical grade **high-quality paraffin** oil
- **Prevents the evaporation of media** allowing the usage of small volume droplets
- **Maintains stable osmolality and pH** in culture medium
- **Glass or PETG bottles** available in different sizes
- **Hypure® Oil Light** is double-washed, allows easy pipetting and a quicker equilibration
- **Hypure® Oil Heavy** is aimed for longer incubation periods in dry incubators

HYPURE® OIL HEAVY

THE BEST OPTION FOR CULTURE IN DRY INCUBATOR

A comparative study assessed the performance of our Hypure® Oil Heavy versus most popular oils in the market. This study, performed by Embryotools, evaluates its manipulation, physicochemical properties, and its effects on the stabilization of culture conditions and embryo development.

They have concluded that **Hypure® Oil Heavy:**

- Its high viscosity **increases security** against medium droplets breaking/fusing and oil spillage during dish transportation/handling
- Is suitable for **extended culture** without replacement of dish
- Has the highest capacity to **prevent evaporation when cultured in dry incubator**
- Provides **better embryo development and cell count rates**
- Maintains **lowest osmolality** after seven days of culture
- **Maintains the temperature and pH** of the drops after a long period of time outside the incubator

Benefits of using **Hypure® Oils Heavy in dry incubators**

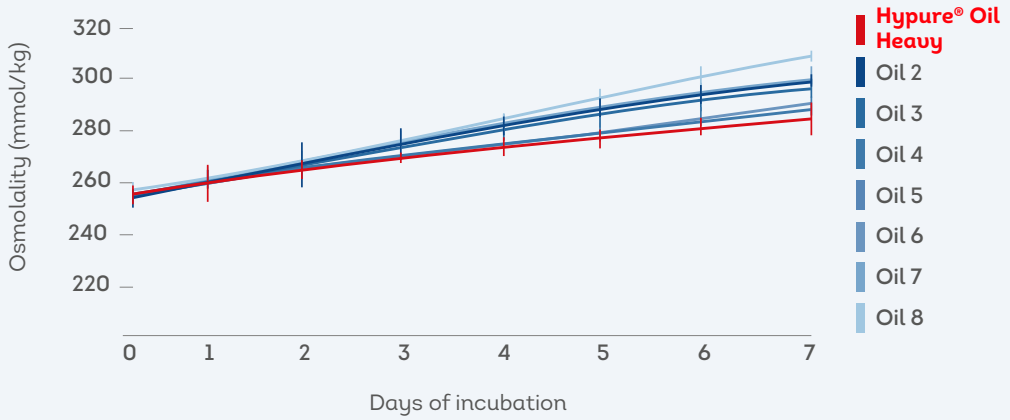
- **High osmolality** in embryo culture has been related to development arrest, changes in gene expression, epigenetic alterations, and **overall worse clinical outcomes**
- **A high viscosity oil is the best alternative for dry incubators** as it can maintain the stability of the embryo culture better
- It allows easy handling with a **reduced risk of spills or droplet mixing**
- It's highly recommended for **single step culture media without dish replacement**
- It **improves the overall success of IVF,** allowing routine elective single ET and thereby yielding ideal perinatal outcomes

Dr. Marcos Meseguer
Senior Embryologist & Scientific Supervisor
IVIRMA

HYPURE® OIL **HEAVY:**

The Lowest Osmolality During Incubation in Dry Benchtop Incubator

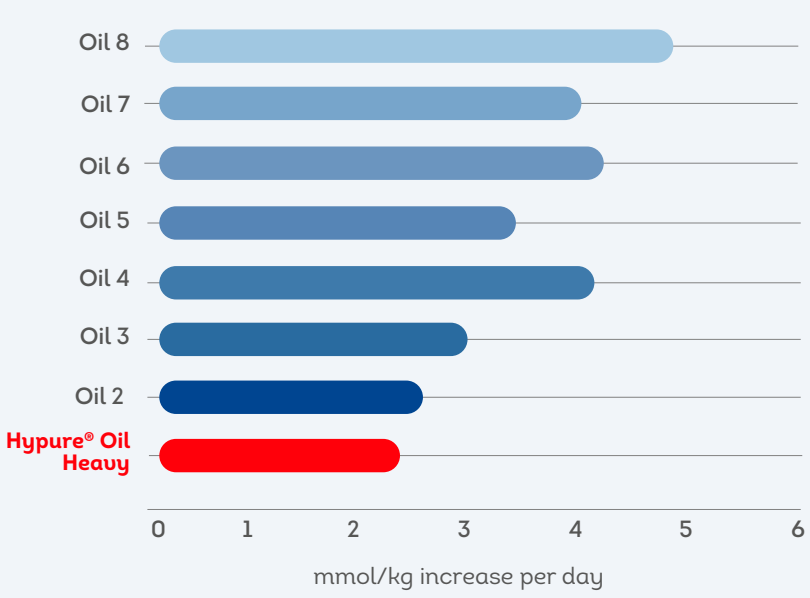
Hypure® Oil Heavy improves embryo development rates and cellular count and offers better pH stability and lower osmolality **(273.0 ± 5.7 mmol/kg after seven days)** than other commercial oils.



HYPURE® OIL **HEAVY:**

The Lowest Osmolality Increase per Day

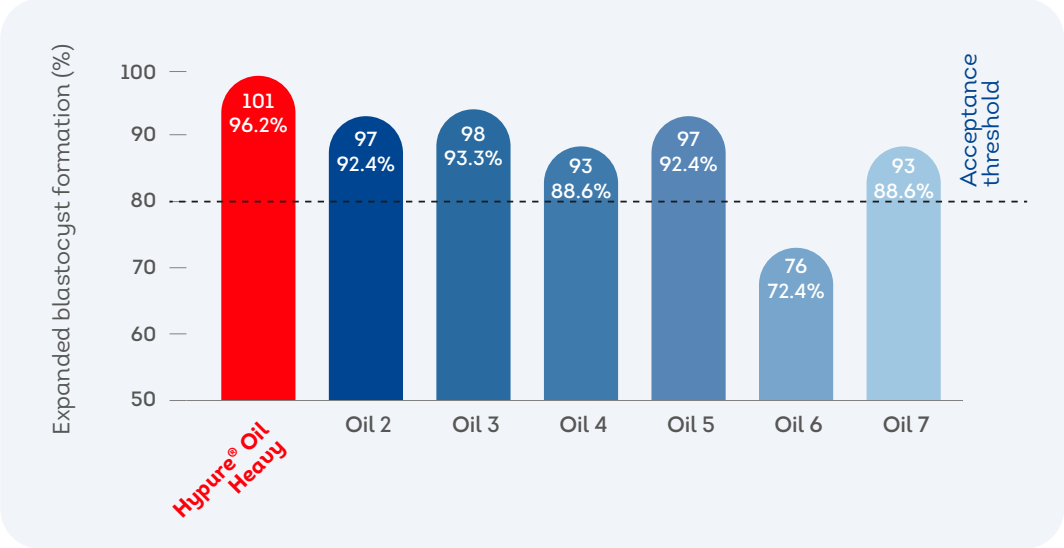
The daily evaporation rate was significantly lower for Hypure® Oil Heavy (+2.224 mmol/kg/day) than for other oils.



HYPURE® OIL **HEAVY:**

The Best Expanded Blastocyst Formation Rates

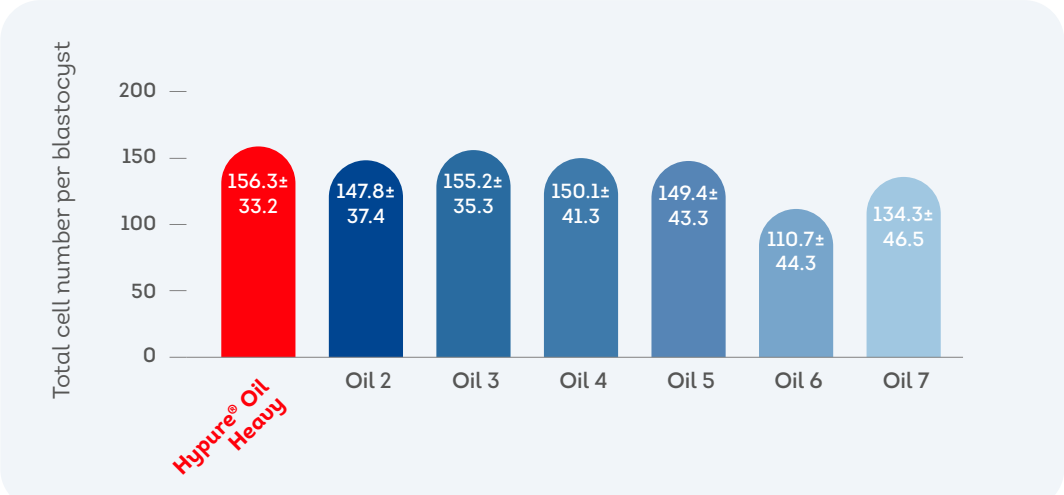
A 96.2% of the mouse embryos cultured under Kitazato Hypure® Oil Heavy reached the expanded blastocyst stage by the 120h end-point. Kitazato Hypure® Oil Heavy resulted in **the highest number of blastocysts produced,** compared to the rest of groups.



HYPURE® OIL **HEAVY:**

The Highest Total Cell Number per Blastocyst

The mouse blastocysts obtained after culture with Hypure® Oil Heavy showed **the highest mean number of cells** compared to the rest of groups. The total cell number per embryo is a quantitative measure of embryo quality.



Read the highlights about the Hypure® Oil Heavy study here:

PRODUCT **REFERENCES**

HYPURE® OIL

Hypure® Oil **Heavy**

Order Number	Code	Specifications	Volume (ml)
96011	MOHVD-100P	PETG Bottle	100
96015	MOHVD-500P	PETG Bottle	500
96010	MOHVD-100	Glass Bottle	100
96014	MOHVD-500	Glass Bottle	500

Hypure® Oil **Light**

Order Number	Code	Specifications	Volume (ml)
96001	MOLHD-100P	PETG Bottle	100
96005	MOLHD-500P	PETG Bottle	500
96000	MOLHD-100	Glass Bottle	100
96004	MOLHD-500	Glass Bottle	500

KITAZATO®

MICRO TOOLS

MICRO TOOLS

High quality micromanipulation pipettes that offer an accurate and precise manipulation of gametes and embryos for ART and PGT.

Co-developed and designed together with major clinics in Japan, Kitazato Micro Tools are handcrafted by highly skilled professionals.

Main Features

HIGH QUALITY

and consistency

PRECISE MANIPULATION

for ART and PGT

STRICT QUALITY CONTROL

with individual inspection of each pipette

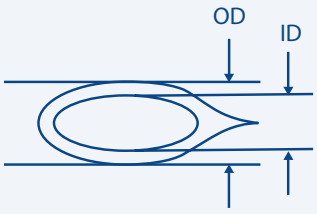
PACKAGED INDIVIDUALLY

in easy-to-open color-coded containers

ICSI INJECTION
PIPETTES

For intracytoplasmic injection of sperm inside the oocyte.

For a precise injection of the sperm inside of the oocyte minimizing damage and allowing a smooth handling.



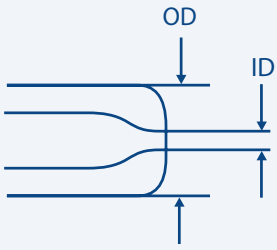
Main characteristics

- Spiked and non spiked tip to minimize damage to oocyte
- Smooth handling of sperm and cytoplasm
- Available with long or short parallel walls
- Three different internal diameters: 4.0-4.5 µm, 4.5-5.0 µm and 5.0-5.5 µm
- Two different angle options: 30° and 35°
- Tip to elbow length range: from 0.50 mm to 1 mm

HOLDING
PIPETTES

For holding oocyte, embryo or blastocyst during intracytoplasmic sperm injection or PGT techniques.

High stability during ICSI and PGT micromanipulations when a reliable steadiness of oocytes or embryos is needed.



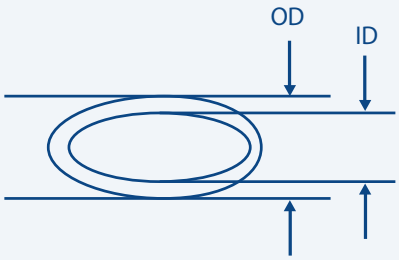
Main characteristics

- Smooth polished tip
- High level of control of specimen
- Different diameters available for different techniques
- Smaller diameter ideal for holding an oocyte
- Larger diameter ideal for embryo biopsy procedures
- Tip to elbow length range: 0.60 mm

BIOPSY
PIPETTES

For removing a blastomere cell, trophectoderm cells or polar body for preimplantation genetic testing.

Specially designed and polished to minimize damage and protect cell membrane during PGT procedures.



Main characteristics

- Flat tip design to minimize damage to cell membrane
- Pipette tips are specially polished to protect cell membrane
- Internal diameter range: from 15 µm to 35 µm
- 15 µm for polar body biopsy
- 25 µm for trophectoderm biopsy
- 30 to 35 µm for blastomere biopsy

PRODUCT **REFERENCES**

ICSI INJECTION PIPETTES

Long Parallel Walls "Slim Type"

Order Number	Code	Inner Diameter (µm)	Tip Bend Angle (°)	Length (mm)
95204	MT-INJ-1S45-30	4.0-4.5	30	0.50
95205	MT-INJ-1S45-35	4.0-4.5	35	0.50
95206	MT-INJ-1L45-30	4.0-4.5	30	1.00
95207	MT-INJ-1L45-35	4.0-4.5	35	1.00
95234	MT-INJ-1S50-30	4.5-5.0	30	0.50
95235	MT-INJ-1S50-35	4.5-5.0	35	0.50
95236	MT-INJ-1L50-30	4.5-5.0	30	1.00
95237	MT-INJ-1L50-35	4.5-5.0	35	1.00
95264	MT-INJ-1S55-30	5.0-5.5	30	0.50
95265	MT-INJ-1S55-35	5.0-5.5	35	0.50
95266	MT-INJ-1L55-30	5.0-5.5	30	1.00
95267	MT-INJ-1L55-35	5.0-5.5	35	1.00

Short Parallel Walls

Order Number	Code	Inner Diameter (µm)	Tip Bend Angle (°)	Length (mm)
95200	MT-INJ-2S45-30	4.0-4.5	30	0.70
95201	MT-INJ-2S45-35	4.0-4.5	35	0.70
95202	MT-INJ-2L45-30	4.0-4.5	30	1.00
95203	MT-INJ-2L45-35	4.0-4.5	35	1.00
95230	MT-INJ-2S50-30	4.5-5.0	30	0.70
95231	MT-INJ-2S50-35	4.5-5.0	35	0.70
95232	MT-INJ-2L50-30	4.5-5.0	30	1.00
95233	MT-INJ-2L50-35	4.5-5.0	35	1.00
95260	MT-INJ-2S55-30	5.0-5.5	30	0.70
95261	MT-INJ-2S55-35	5.0-5.5	35	0.70
95262	MT-INJ-2L55-30	5.0-5.5	30	1.00
95263	MT-INJ-2L55-35	5.0-5.5	35	1.00

Non Spike Tip

Order Number	Code	Inner Diameter (µm)	Tip Bend Angle (°)	Length (mm)
95208	MT-INJ-3L45-30	4-4.5	30	1.00
95209	MT-INJ-3L45-35	4-4.5	35	1.00
95210	MT-INJ-3L50-30	4.5-5	30	1.00
95211	MT-INJ-3L50-35	4.5-5	35	1.00

PRODUCT **REFERENCES**

HOLDING PIPETTES

Order Number	Code	Outer Diameter (µm)	Inner Diameter (µm)	Tip Bend Angle (°)	Tip to Elbow Length (mm)
95310	MT-HD-90-30	90	15-20	30	0.60
95311	MT-HD-90-35	90	15-20	35	0.60
95300	MT-HD-100-30	100	15-20	30	0.60
95301	MT-HD-100-35	100	15-20	35	0.60
95302	MT-HD-120-30	120	15-20	30	0.60
95303	MT-HD-120-35	120	15-20	35	0.60
95360	MT-HD-120W-30	120	25-30	30	0.60
95361	MT-HD-120W-35	120	25-30	35	0.60

BIOPSY PIPETTES

Blastomere & Trophectoderm Biopsy

Order Number	Code	Inner Diameter (µm)	Tip Bend Angle (°)	Tip Shape
95350	MT-BPBM-25-30	25	30	Flat
95351	MT-BPBM-25-35	25	35	Flat
95352	MT-BPBM-30-30	30	30	Flat
95353	MT-BPBM-30-35	30	35	Flat
95354	MT-BPBM-35-30	35	30	Flat
95355	MT-BPBM-35-35	35	35	Flat

Polar Body Biopsy

Order Number	Code	Inner Diameter (µm)	Tip Bend Angle (°)	Tip Shape
95370	MT-BPPD-30	15	30	Flat
95371	MT-BPPD-35	15	35	Flat

PZD PIPETTES

Order Number	Code	Tip Bend Angle (°)
95400	MT-PZD-30-55	30
95401	MT-PZD-35-55	35

KITAZATO®

TRAINING
PROGRAM

OUR GREATEST ACHIEVEMENT IS FOR YOU **TO OBTAIN THE BEST CLINICAL RESULTS**

Kitazato has spent over a decade investing in training and workshops around the world. Thousands of embryologists have learned the Tips & Tricks of the Kitazato Vitrification, whether at conferences, on visits to clinics, or at our reference support centers and training facilities.

We know that **The Cryotop® Method** offers the best survival results on the market, and we are committed to helping you achieve this. To do so, our trainings are always led by experienced professionals, belonging to some of the most renowned clinics in the world, supported by our team of specialized embryologists.

During our trainings, we reinforce the learning process by starting with a theoretical session followed by a hands-on one in which trainers share valuable knowledge and experiences from their daily routines that will help you master **The Cryotop® Method.** We guarantee that no question will go unanswered.

8
Hands-on workshops regularly led in 8 countries

+5,000
Embryologists trained worldwide

+15
Years investing in training & workshops

v.2 2023

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