Optimas

where the life begins

MicroART
Touching gently to the
beginning of life

ICSI
Pipettes

ICSI pipettes are used to aspirate the sperm cell and inject into the oocyte during an ICSI procedure. Optimally parallel design and elbow-to-tip length enable a precise intraluminal fluid control. This feature helps a better sperm injection control and makes carriage of multiple sperms at a time possible. The ideally flexible tip design provides an effective immobilization of the sperm, without adherence of the sperm tail to the surface of the dish. Optimally designed sharp tip enables easy penetration into zona pellucida and a gentle entrance into the cytoplasm. Different ICSI pipette types with varying inner diameters, tip types and elbow angles are provided for different requirements.

Holding
Pipettes

Holding pipettes are used for the stabilization of the oocytes during intracytoplasmic sperm injection (ICSI) and the embryos during embryo biopsy procedure. Optimal tip length and design, and inner diameter size enable a precise aspiration control. Holding micropipettes are provided in two different sizes in order to meet your varying micromanipulation requirements.

Biopsy
Pipettes

Biopsy pipettes are used for the biopsy of polar bodies from oocytes, blastomeres from cleavage stage embryos and trophectoderm cells from blastocysts, for purposes of preimplantation genetic diagnosis. The smoothed tip prevents damage to the cells, and the optimally narrowed elbow-to-tip design enables a precisely sensitive aspiration control. Biopsy micropipettes are provided in different inner diameters in order to meet your varying micromanipulation requirements.

PZD
Pipettes

PZD pipettes are used for the mechanical, partial dissection of zona pellucida during assisted hatching procedure and/ or prior to biopsy procedures from oocytes, cleavage stage embryos and blastocysts. The rapidly thickening structure from tip to elbow and the sharp closed-tip design enable an easy punching on zona pellucida with an ideal size.

AHA
Pipettes

AHA pipettes are used for the chemical (using acid solutions) partial dissection of zona pellucida during assisted hatching procedure and/or prior to biopsy procedures from oocytes, cleavage stage embryos and blastocysts. Paralelly design long tip enables a precision fluid control.

TESE
Pipettes

TESE pipettes are used for sperm collection from TESE material, round spermatid injection (ROSI) and elongated spermatid injection (ELSI) during ICSI procedures. With its optimally parallel design and elbow-to-tip length, it enables a better sperm injection control and makes carriage of multiple sperms at a time possible. Optimally designed sharp tip enables easy penetration into zona pellucida and a gentle entrance into the cytoplasm. Different TESE pipette types with varying inner diameters, tip types and elbow angles are provided for different requirements.

IVF Pasteur
Pipettes

IVF pasteur pipettes are used for the collection and manipulation of the cumulus-oocyte complexes during oocyte collection procedure (OPU), preparation of culture droplets within culture dishes and for denudation of the oocytes subsequent to shaping over the fire. They are specifically designed for use in IVF laboratories; they are plugless, and contain no particles or endotoxins. They can be easily formed on the fire. They are packaged in 5, LAL and MEA tested, and gamma-sterilized.

Optimas IVF Micro-Pipettes
Technical Specifications

Product	Description	Referance No	Outer Diameter (micrometer)	Inner Diameter (micrometer)	Angle* (degree)	Bevel To Tip Length (micrometer)	Total Length (millimeter)
ICSI Pipette	Micro-injection with short spike	OMIS6530	6	5	30	800	54-56
ICSI Pipette	Micro-injection with long spike	OMILS6530	6	5	30	800	54-56
ICSI Pipette	Micro-injection without spike	OMI6530	6	5	30	800	54-56
Holding Pipette	Holding oocytes and embryos (Large)	OMH1202030	120	16-18	30	700	54-56
Holding Pipette	Holding oocytes and embryos (Small)	OMH1001030	100	10-12	30	700	54-56
Embryo Biopsy Pipette	Blastomere biopsy for PGD	OMB453530	45	35	30	700	54-56
Embryo Biopsy Pipette	Trophectoderm biopsy for PGD	OMB403030	40	30	30	700	54-56
Embryo Biopsy Pipette	Trophectoderm biopsy for PGD	OMB352530	35	25	30	700	54-56
Polar Body Biopsy Pipette	Polar body biopsy for PGD	OMB251530	25	15	30	700	54-56
TESE Pipette	Sperm collection for TESE	OMTS8630	8	6,5	30	800	54-56
TESE Pipette	Immature sperm collection for TESE and ROSI	OMTS9730	9	7	30	800	54-56
PZD Pipette	Asisted hatching (Mechanical)	OMPZD30	-	-	30	800	54-56
AHA Pipette	Asisted hatching (Chemical)	OMZD201030	20	10	30	700	54-56
IVF Pasteur Pipette	Handling of oocytes, sperms and embryos	OMPP1200	1500	1200	30	-	150

*35 degree angled pipettes are manufactured on request

Quality

Optimas micro-pipettes are designed by senior embryologists and manufactured in cleanroom conditions from ultrasonic washed high grade borosilicate glass with a strict quality control management. Quality checked one by one, dry heated and gamma sterilized. Sterility, LAL and one cell MEA tested.

CE 1984 ISO 13485 certified

where the life begins

COOLING

	Mean Cooling rate (°C/min)	SD
With movement	-31054	597
Without movement	-30637	587

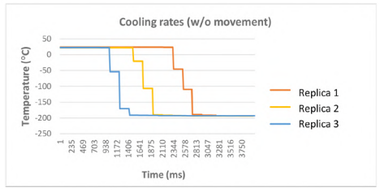


***Figure 12**. Graph with cooling ramps without moving the device.*

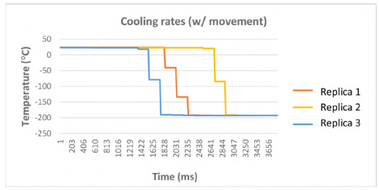


***Figure 13**. Graph with cooling ramps applying a quick movement after plunging the device in LN2.*

WARMING

	Replicas	Mean warming rate (°C/min)	SD
4ml with pause	5	+58340	1081
4ml without pause	4	+57966	1757
1ml with pause	3	+59542	24784
1ml without pause	4	+60102	2092

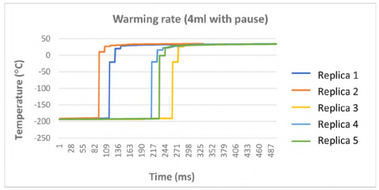


***Figure 14**. Graph with warming ramps using a volume of 4ml in 35mm dish with pause.*

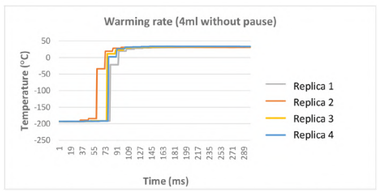


***Figure 15**. Graph with warming ramps using a volume of 4ml in 35mm dish without pause.*

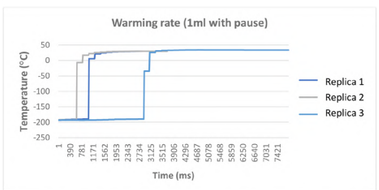


***Figure 16**. Graph with warming ramps using a volume of 1ml in 5-well dish with pause.*

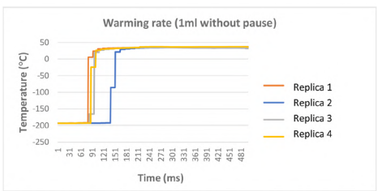


***Figure 17**. Graph with warming ramps using a volume of 1ml in 5-well dish without pause.*

Optimas
Vitrification Device
OVDT / OVDC

OVDT is a vitrification device, consisting of a thin strip film firmly attached to a malleable plastic body resistant to liquid nitrogen, which is specially designed for carrying oocytes and embryos during vitrification procedures in all stages of development. The thin strip film provides fast cooling and warming rates and optimizes the outcomes. Validation was performed by Embryotools Spain and the cooling and warming rates are shown on the left.

OVDC is a one-piece vitrification device consisting of a more rigid, transparent, curved tip and a coloured, transparent, malleable plastic body resistant to liquid nitrogen, which is specially designed as well, for carrying oocytes and embryos during vitrification procedures in all stages of development. The rigid curved tip provides easy and safe handling of oocytes and embryos.

OVDT is available in six different colors, OVDC is available in five different colors. Both OVDT and OVDC have a large place for identity information and two markers for indicating the side where the oocytes or embryos are placed, and two markers (one on the tip of the oocyte and embryo loading place and one on the tip of external cover) for easy attachment of the external cover during vitrification procedure. Thanks to their slim bodies they occupy a very small space and allow more sample storage per tank.

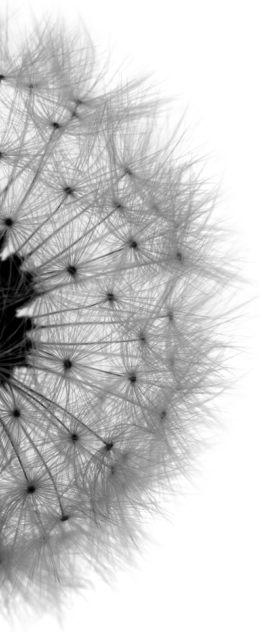
Quality

Quality checked one by one, gamma sterilized. Sterility, LAL and one cell MEA tested.

CE 1984 ISO 13485 certified

°C/min **-30637** COOLING RATE

°C/min **+60102** WARMING RATE



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