

Sunlight Medical

Assisted Reproduction Microtools



www.sunlightmedical.net

Sunlight Medical Inc (SLM) manufactures and supplies a complete line of micropipettes for in vitro fertilization (IVF) procedures such as intracytoplasmic sperm injection (ICSI), embryo biopsy, assisted hatching, and other related procedures. We offer **consistency, precision, reliability, convenience, and value.**

Quality Assurance

SLM micropipettes are designed and manufactured under the direct supervision of scientists who are experts in the field of assisted reproduction technology (ART) and micromanipulation. Each micropipette is hand-crafted by highly trained technicians in a controlled environment and is individually examined for quality assurance.

SLM micropipettes are **traceable** to the materials, procedures, and production and QA personnel in preparing each individual pipette for **quality assurance**. This extra step puts pressure on everyone of us for consistent high quality products, but gives you relaxation and confidence for **precision manipulations and desired outcomes.**

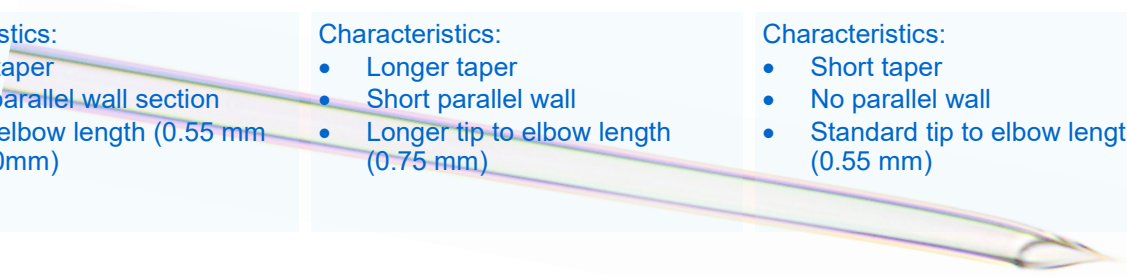
Packaging

SLM pipettes are packed in our convenient **color coded** pipette safe cases. The case is designed with a **green** concept by using minimal materials for conservation and minimizing weight and size of the total package in the effort to reduce energy used for transportation. The outer box, including all labels, is made of paper for easy recycling.

Select an ICSI pipette that is best for your need!

Sunlight Medical offers three types of spiked ICSI injection pipettes for our diversified customers. The table below summarizes their differences, characteristics and advantages.

V type	H type	W type
		
Characteristics: • Short taper • Long parallel wall section • Tip to elbow length (0.55 mm or 1.00mm)	Characteristics: • Longer taper • Short parallel wall • Longer tip to elbow length (0.75 mm)	Characteristics: • Short taper • No parallel wall • Standard tip to elbow length (0.55 mm)



ICSI Injection Pipettes

- SLM ICSI Injection Pipettes are used to perform intracytoplasmic sperm injection (ICSI).
- SLM offers three types of spiked and two types of non-spiked ICSI Injection Pipettes. See page 2 for details.
- All our injection pipettes are supplied with an angle of 0° - 45° and a tip to elbow length of 0.55 mm and 1.0 mm.
- The flat tip ICSI pipette is for Piezo injection
- Other specifications and customized pipettes are available on request.



Catalogue Number	Size	Tip Style	Tip to Elbow Length	Tip Angle degree
SIC-45V-xx, SIC-45V-xxL SIC-45W-xx, SIC-45W-xxL SIC-45H-xx	ID: 4.0-4.5 μ m OD: 5-6 μ m	Spiked tip	xx – 0.55 mm xxL – 1.0 mm	xx – 0° , 5° , 10° , 15° , 20° , 25° , 30° , 35° , 40° , 45°
SIC-45T-xx, SIC-45T-xxL SIC-45N-xx, SIC-45N-xxL	ID: 4.0-4.5 μ m OD: 5-6 μ m	Non spiked tip	xx – 0.55 mm xxL – 1.0 mm	
SIC-50V-xx, SIC-50V-xxL SIC-50W-xx, SIC-50W-xxL SIC-50H-xx	ID: 4.5-5.0 μ m OD: 6-7 μ m	Spiked tip	xx – 0.55 mm xxL – 1.0 mm	
SIC-55V-xx, SIC-55V-xxL SIC-55W-xx, SIC-55W-xxL SIC-55H-xx	ID: 5.0-5.5 μ m OD: 6-7 μ m	Spiked tip	xx – 0.55 mm xxL – 1.0 mm	
SIC-45F-xxR SIC-50F-xxR	ID: 4.5-5.0 μ m OD: 6-7 μ m	Flat tip	xxR – 2.0 mm	

Holding Pipettes

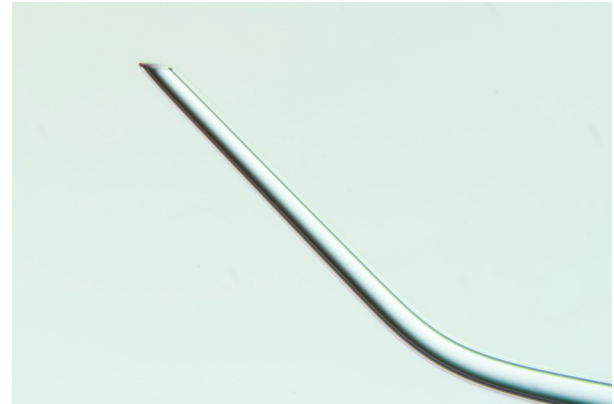


- SLM Holding Pipettes are used to hold an oocyte or embryo in position during ICSI and other micromanipulation procedures.
- There are three series and six sizes for selection. The classic series has an ID 15-20 μm and OD in 90 μm , 100 μm , 120 μm , 130 μm and 150 μm . The 'S' series has smaller ID (10-15 μm). The 'B' series has an ID 25-30 μm and OD in 120 μm , 130 μm , 150 and 180 μm . The 'B' series may be used for holding an oocyte with cumulus cells attached and for embryo biopsy.
- All our holding pipettes are supplied with a tip angle of 0° - 45° and a tip to elbow length of 0.65 mm.
- Packed in a box of 10.

Catalogue Number	Outer Diameter μm	Inner Diameter μm	Tip Angle degree
SHP-70S-xx	70	10-15	xx – $0^\circ, 5^\circ, 10^\circ, 15^\circ, 20^\circ, 25^\circ, 30^\circ, 35^\circ, 40^\circ, 45^\circ$
SHP-90-xx	90	15-20	
SHP-100-xx	100	15-20	
SHP-120-xx	120	15-20	
SHP-120B-xx	120	25-30	
SHP-130-xx	130	15-20	
SHP-130B-xx	130	25-30	
SHP-150-xx	150	15-20	
SHP-150B-xx	150	25-30	
SHP-180B-xx	180	25-30	

- SLM Blastomere Biopsy Pipettes are used to remove blastomeres and trophectoderm cells from embryos for pre-implantation genetic diagnosis (PGD).
- There are five sizes and two series available for selection. The 'Z' series is flat tip while the 'X' series is beveled tip. Both styles are supplied with an ID in 20 μm , 25 μm , 30 μm , 35 μm , and 40 μm . Size 20 μm and 25 μm are recommended for trophectoderm (TE) biopsy.
- There is no shrinkage at the bending section, so less likely to damage blastomere or loss of cells in case it is sucked through.
- All tips are fire polished to reduce damage to the cell membrane.
- They are supplied with a tip angle of 0° - 45° and a tip to elbow length of 0.55 mm.

Blastomere Biopsy Pipettes



For trophectoderm (TE) biopsy use
ID 20 μm and 25 μm pipettes.

Catalogue Number	Tip Style	Inner Diameter μm	Tip Angle degree
SBB-20Z-xx	Flat	20 $\pm$ 0.2	xx – 0° , 5° , 10° , 15° , 20° , 25° , 30° , 35° , 40° , 45°
SBB-25Z-xx	Flat	25 $\pm$ 0.2	
SBB-30Z-xx	Flat	30 $\pm$ 0.2	
SBB-35Z-xx	Flat	35 $\pm$ 0.2	
SBB-40Z-xx	Flat	40 $\pm$ 0.2	xx – 0° , 5° , 10° , 15° , 20° , 25° , 30° , 35° , 40° , 45°
SBB-20X-xx	Beveled	20 $\pm$ 0.2	
SBB-25X-xx	Beveled	25 $\pm$ 0.2	
SBB-30X-xx	Beveled	30 $\pm$ 0.2	
SBB-35X-xx	Beveled	35 $\pm$ 0.2	
SBB-40X-xx	Beveled	40 $\pm$ 0.2	

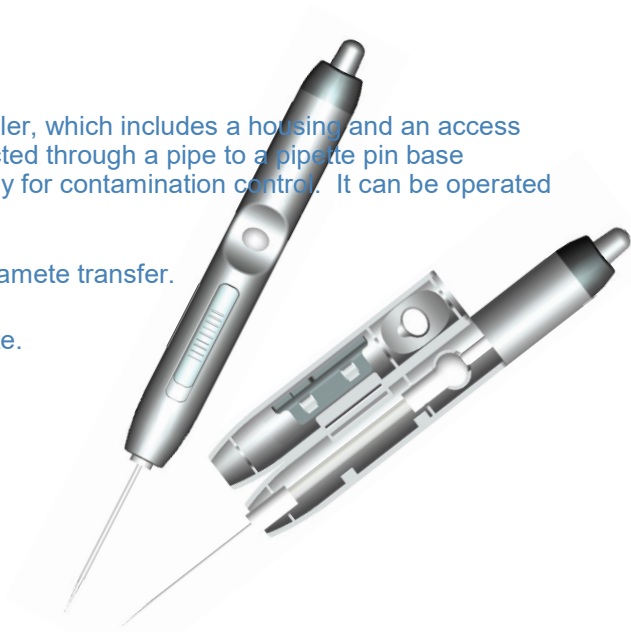
Pipette Controllers

SLM 3-in-One Pipettor is a multi-actuated micro-pipette controller, which includes a housing and an access door, a ballonet seated at the housing. The ballonet is connected through a pipe to a pipette pin base (ballonet assembly). The ballonet assembly can be replaced easily for contamination control. It can be operated in three ways:

- Pressing on the top cap for denudation of cumulus cells and gamete transfer.
- Press on the ballonet directly for denudation and transfer.
- Take the ballonet assembly out and use it like a Pasteur pipette.

Note: This product is for use in research only.

Sunlight Medical
3 in One PIPETTOR
U.S. Patent approved



Polar Body Biopsy Pipettes

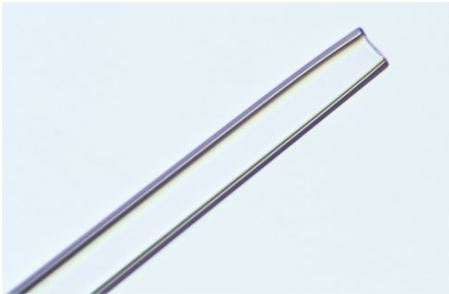


- SLM Polar Body Biopsy Pipettes are used to remove polar bodies from human oocytes and embryos for pre-implantation genetic diagnosis (PGD).
- There are three series of pipettes available for selection: 15Z (flat tip), 15X (beveled tip) and 15S (spiked tip).
- All these pipettes are designed with a fire polished edge to avoid damage to the cell membrane.
- They are supplied with a tip angle of 0° - 45° and a tip to elbow length of 0.55 mm.

Catalogue Number	Inner Diameter µm	Tip Style	Tip Angle degree
SPB-15Z-xx	13-15	Flat	xx – 0°, 5°, 10°, 15°, 20°, 25°, 30°, 35°, 40°, 45°
SPB-15X-xx	13-15	Beveled	
SPB-15S-xx	13-15	Beveled and Spiked	

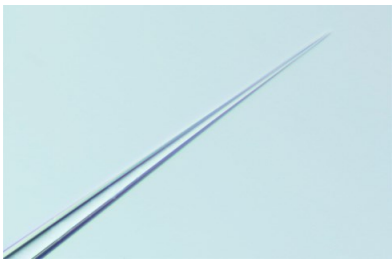
- SLM Denuding pipettes can be used with SLM 3-in-One Pipette Controller and other pipette holders for denudation, and gametes and embryo transfer.
- The pipettes are made of borosilicate glass which is known for its stability, and is resistant to corrosion and remains absolutely neutral, even to aggressive chemicals in nearly all fields of chemistry.
- Unpolished pipettes are used to remove cumulus cells attached to zona prior to micromanipulation procedures and fertilization assessment.
- Polished pipettes are used to transfer blastomere (during PGS), oocytes and embryos from one dish to another during other assisted reproduction procedures.

Denuding Pipettes



Catalogue Number	Inner Diameter μm	Tip Style	Catalogue Number	Inner Diameter μm	Tip Style
SDP-130	130-134	Unpolished	SDP-70P	65-74	Polished
SDP-140	135-144	Unpolished	SDP-80P	75-84	Polished
SDP-150	145-154	Unpolished	SDP-90P	85-99	Polished
SDP-160	155-164	Unpolished	SDP-100P	100-119	Polished
SDP-170	165-174	Unpolished	SDP-170P	170-189	Polished
			SDP-190P	190-219	Polished
			SDP-220P	220-249	Polished
			SDP-250P	250-289	Polished
			SDP-290P	290-319	Polished
			SDP-320P	320-360	Polished

PZD Pipettes



- SLM PZD Pipettes are used to cut an opening on the zona pellucida of an oocyte mechanically to enable assisted hatching and/or embryo biopsy.
- The pipette is designed with a very sharp tip and a strong taper section for easy control and precision manipulation.
- They are supplied with a 0° - 45° tip angle and a tip to elbow length 0.55 mm.

Catalogue Number	Description	Tip Angle degree
SPD-30	Solid Sharp Tip	30

Instructions for Use:

- To open the case, hold the case as shown in Figure 1. Make sure that the “Sunlight” mark is up facing your right hand.
- Using your left index finger and thumb press the case on both sides marked “IIII” then using your right index finger and thumb pull the top cover as shown in Figure 2.

- Hold firmly the pipette in the middle and gently pull it out from the base as shown in Figure 3.



Caution: Consult accompanying document • Do not reuse • Sterilized using irradiation • Do not use if package is damaged • Store dry at room temperature • Keep away from Sunray

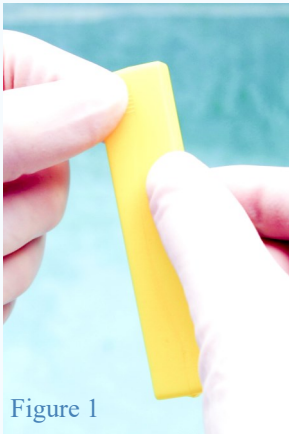


Figure 1



Figure 2



Figure 3

SperMagic® Medium

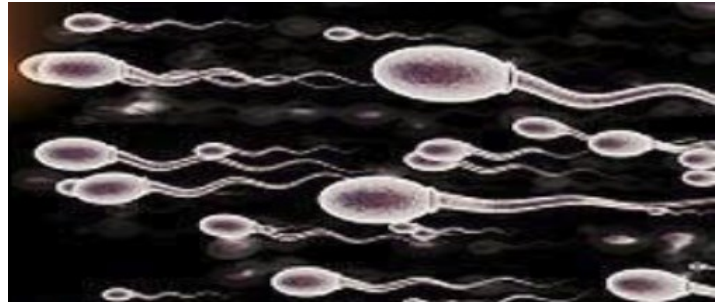
- Improving sperm function like magic.

1. SperMagic® can enhance Ca^{2+} influx via membrane Ca^{2+} channel, consequently increase dynamic movement of micro-tubules through signal transduction system, and finally promotes sperm motility.
2. SperMagic® could bind sperm membrane receptor and then stimulate receptor-linked signal transduction system, and increase Ca^{2+} influx, consequently promote sperm capacitation and hyper-activation.
3. SperMagic® can produce more ATP energy via increasing mitochondria metabolism, and further provide enough ATP for sperm movement.

Note: This product is for use in research only.

References:

1. Biology of Reproduction, Special Issue, P229-230, 2005
2. Theriogenology, Suppl. 2008, P36.
3. Reproduction, fertility & development, 2006; 18(1, 2):259.
4. Biology of Reproduction, 2008 SEP 15; 112(6): 182-182.



Sperm Swimming Trapper

The sperm swimming trapper may be used for natural selection of sperm with high DNA integrity by avoiding centrifugation. It is simple and easy to use.

Note: This product is for use in research only.

Catalogue Number	Description	Package Size
RBC-2012	Sperm Swimming Trapper	Each
RBC-2012R	Sperm Swimming Rack	Each



How to order?

Please contact your local distributor when placing your order. If a distributor is not available in your region, orders can be placed by email: slm@sunlightmedical.net, fax: (904) 363 0958, or online at www.sunlightmedical.net.

We would be happy to send you samples for evaluation.

Visit us at
www.sunlightmedical.net



Distributor

 **Sunlight Medical, Inc.**

5570 Florida Mining Boulevard S.
Suite 603
Jacksonville, Florida 32257
U.S.A.

slm@sunlightmedical.net
Phone: (904) 886 2900 / 866 7980
Fax: (904) 363 0958

ISO 13485

EC REP

AJW Technology Consulting GmbH
Breite Straße 3
40213 Düsseldorf, Germany