Micromanipulator for Inverted Microscope

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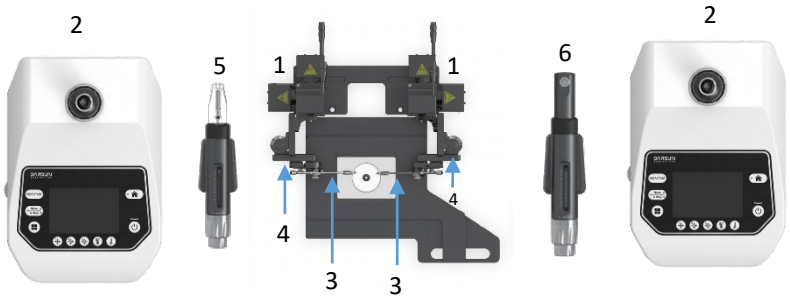
DS-LISA

Product introduction

The DS-LISA micromanipulation operating system has a English bilingual interface. By controlling the rocking bar, cell microinjection operations can be carried out accurately and quickly, maximumly improving the success rate. DS-LISA is equipped with single-axis motion and three-axis locking functions, providing greater flexibility and convenience for Intracytoplasmic Sperm Injection (ICSI)

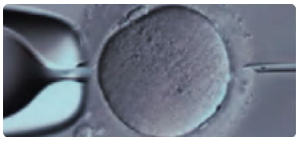
- Equipped with a Chinese/English bilingual interface.
- Good stability, no vibration during operation
- Adjustable microscope needle pitch and horizontal angle by knob
- The attachment functions can be selected and set.(Single-axis motion or locking, step injection)
- The Z-axis limit position can be set to prevent capillary breakage



1. Micromanipulation Arm x2
2. Micromanipulation Controller x2
3. Needle Holder x1
4. Needle Angle Adjustor x2
5. Oil Pressure Microinjector x1
6. Air pressure Microinjector x1

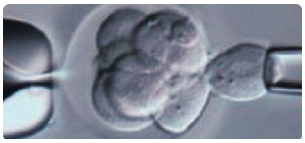
Suspension cell injection

Prokaryotic or cytoplasmic injection Assisted Reproductive Technology ICSI operations (intracytoplasmic single sperm injection)



Suspension cell manipulation

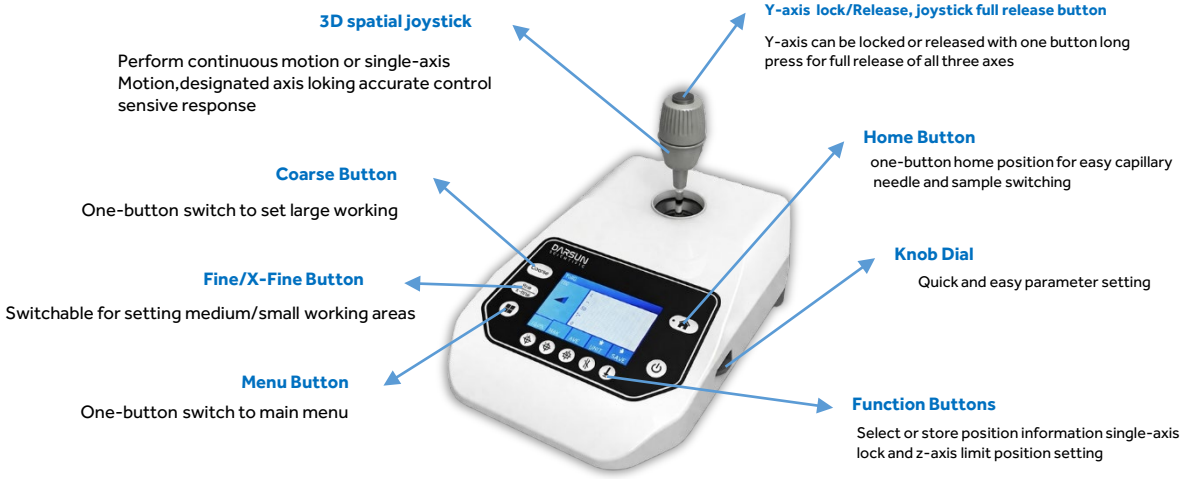
Cell transplantation
Single-cell separation



Micromanipulation Controller

Buttons, display, joystick and side dial are included. The movement direction and speed of the joystick are transmitted to the micromanipulation side through the control board. The movement speed and working range size can be predefined in the software. The working scope can be selected and changed individually on the control panel.

Micromanipulation controller	A joystick can be moved to control the movement distance and direction of the X, Y, and Z axes
Speed control	Proportional and dynamic force feedback control
Work mode	Coarse / Fine / X-Fine
Size (L×W×H)	200×290×145 mm

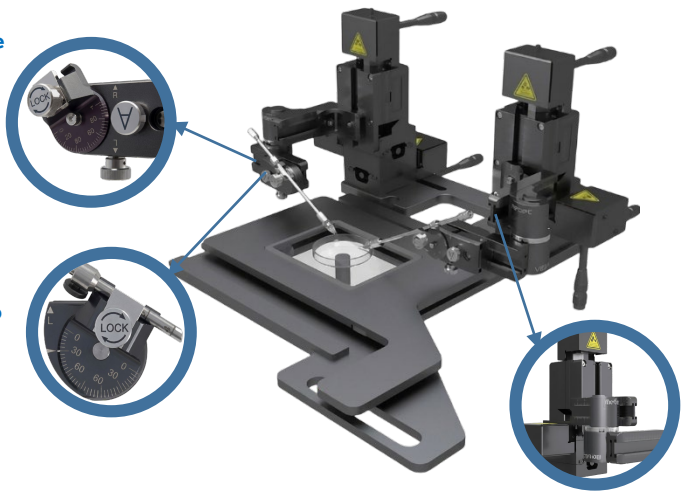


Micromanipulation Manipulato

Move smoothly without jitter or delay in the X, Y, Z three- dimensional

Horizontal oscillation angle adjustment knob

Adjustable microscope needle horizontal swing angle



Needle Holder Fixing Knob

For needle holder fixation.

Rotary axis

Quickly rotates the needle holder away from the sample for easy needle and sample changes

MICROMANIPULATION MANIPULATOR:

X. Y, Z three-axis motion mechanism, rotating connector and angle adjustment are included which is used to move and position the micromanipulation side in three-dimensional space.

Single axis moving distance	≥20 mm
Weights	3.5 kg
Movement speed	0 ~ 13000 μm/s
Mechanical adjustment distance	0 ~ 105 mm
Size (LWH)	140 * 100 * 240 mm
Rotary axis offset angle	-45° ~ 110°

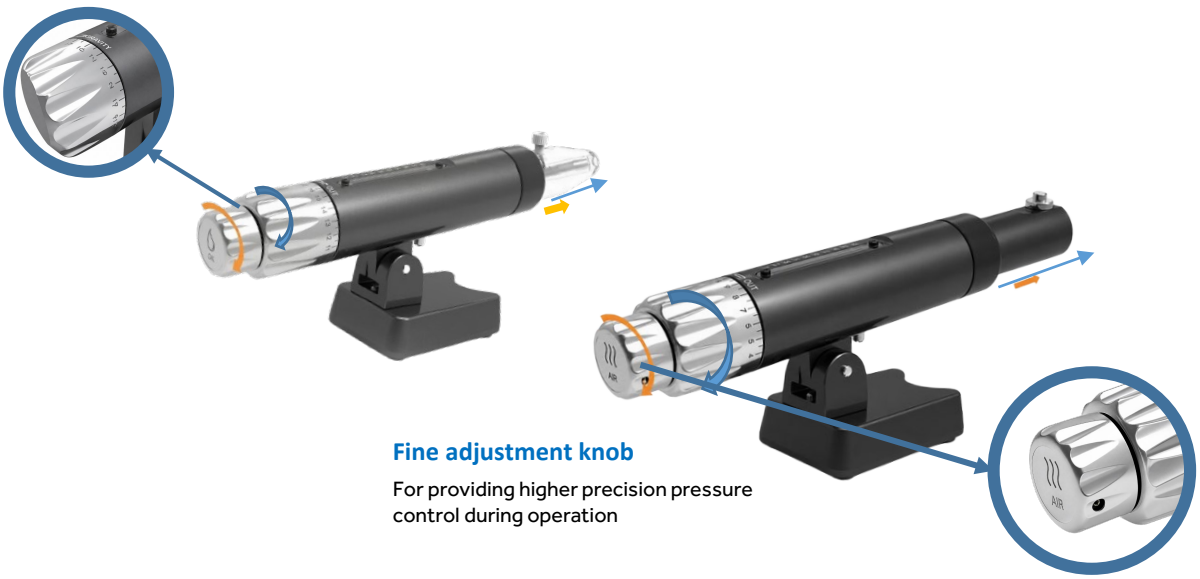
MICROINJECTION INSTRUMENT

With good sealing performance, operations such as suspension positioning and cell removal of embryos can be carried out using air and oil.

Oil pressure microinjector and air pressure microinjector: for manual micro-volume high-precision injection, micro-volume liquid distribution injection and gas pressure control. 0l pressure microinjector is applied in complex scenarios with high resolution and high sensitivity (embryo biopsy and cell implantation, etc. Air pressure microinjector is a micro-transfer pneumatic micro-syringe, which is widely applied in scenarios like suspending cells, embryo maintenance, or transferring smaller volumes of liquid.

Coarse adjustment knob

For rapid changes of internal pressure.



Fine adjustment knob

For providing higher precision pressure control during operation

Oil pressure microinjector	
Function	Aspiration and dispensing of microcells, Manual microinjection, Cell removal
Medium	Paraffin oil
Volume change per revolution	1μL / 10μL
Maximum volume	1000μL
Injection tube	1.3 meters long, inner diameter 1.0 mm, outer diameter 2.0 mm

Air pressure microinjector	
Function	Microcell suspension maintenance, Aspiration and dispensing of microcell, Small volumes of liquids trace dispensing
Pressure generation	Air
Volume change per revolution	60μL/600μL
Maximum volume	10mL
Injection tube	1.3 meters long, inner diameter 1.0 mm, outer diameter 2.0 mm