

ECLIPSE Ti2-U **Inverted Microscope for ICSI** Nikon n П Nikon ECLIPSE Ti2 Shedding New Light On MICROSCOPY

Superior optical performance and precision for ICSI

Nikon microscopes have played a significant role from the early days of Intracytoplasmic Sperm Injection (ICSI) and continue to contribute to the advancement of this field through superior optical performance and precision.

The ECLIPSE Ti2-U IVF EU/US provides an ultra-stable platform for performing precision manipulation procedures such as ICSI. The intermediate magnification switching function (1.5X) allows easy switching of observation magnification without changing objectives.



Nikon Advanced Modulation Contrast (NAMC) observation

The Nikon Advanced Modulation Contrast (NAMC) technique enables high-contrast observation of colorless and transparent samples through plasticware. NAMC produces a pseudo-relief shading effect, ideal for ICSI. The direction of shading can be adjusted through 360 degrees by turning the modulator in an NAMC objective. CFI S Plan Fluor ELWD NAMC objectives are equipped with a modulator ring clamping mechanism to prevent accidental rotation of the modulator ring while rotating the correction collar.



A sperm cell can be clearly observed in the injection pipette Images courtesy of: Derek Keating, B.A. and Gianpiero D. Palermo, MD, PhD., Andrology and Assisted Fertilization: Weill Cornell Medicine Ronald O. Perelman and Claudia Cohen Center for Reproductive Medicine.



CFI S Plan Fluor ELWD NAMC 20XC (left), CFI S Plan Fluor ELWD NAMC 40XC (right)

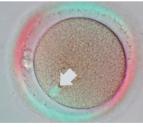


CFI Achromat NAMC 10XF (left) , CFI Achromat LWD NAMC 20XF (middle), CFI Achromat LWD NAMC 40XC (right)

Spindle observation

This polarized light technique enables finely detailed observation of spindle bodies for oocyte assessment and the elimination of spindle damage during sperm injection. Switching between spindle observation and NAMC is fast and easy.

The following objectives are compatible with spindle observation: CFI S Plan Fluor ELWD NAMC 20XC and CFI S Plan Fluor ELWD NAMC 40XC.





Spindle bodies (indicated by arrows) observed in different colors depending on their orientation. The color can be changed from blue to red by rotating the condenser module 90 degrees.



TI2-C-SO Spindle observation system



Specifications

	Model name	ECLIPSE Ti2-U IVF EU	ECLIPSE Ti2-U IVF US
	Optical System	Infinity-corrected CFI60	
Main Body	Field Number	22 with C-mount, 25 with F-mount	
	Intermediate Magnification Switching	Manual switching of 1.0x/1.5x	
	Output Port	4 Manual positions Eyepiece 100%, left 100%, right 100%, eyepiece 20%/left 80%	
	Focusing Unit	Manual drive, Coarse/Fine focusing knob, Focusing stroke: 10 mm	
Tube		TC-T-TS Binocular S tube (Field number 22)	
Eyepiece Tube Base		• TI2-T-BS S Eyepiece Tube Base Unit	
Eyepiece		CFI 10X Eyepiece (Field number 22)	
Transmitted Illumination	Pillar for transmitted illumination	• TI2-D-PDI Pillar I for Dia Illumination Condenser vertical stroke: 66 mm, Backward tilting up to 25 degrees, with field diagram and refocusing mechanism	
	LED Lamphouse for Dia Illumination	TI2-D-LHLED LED Lamp House for Dia Illumination: High power LED	
	Condenser Turret	TC-C-TC Condenser Turret: 7 manual positions	
	Condenser Lens	• TI-C NAMC Condenser Lens (O.D.=44 mm, NA=0.4)	
Condenser	Modules for Condenser Turret	TC-C-MN-10X NAMC 10X Module TC-C-MN-20X NAMC 20X Module TC-C-MN-40X NAMC 40X Module	
	Polarizer for NAMC Observation	TC-C-DICPNI NAMC/IMSI Polarizer	
Stage		TC-S-SRI Stage IVF Stroke X: ±57 mm, Stroke Y: ±36.5 mm TI2-S-HL Long Handle	TC-S-SR Stage Stroke X: ±57 mm, Stroke Y: ±36.5 mm TI2-S-HL Long Handle
Nosepiece		TI2-N-ND DIC Sextuple Nosepiece: 6 manual positions, Simple waterproof structure TI2-N-N Sextuple Nosepiece: 6 manual positions, Simple waterproof structure	
Spindle Obse	rvation System	TI2-C-SO Spindle Observation System	
Adjustment Tool		C-T Centering Telescope	
Objectives (NA/W.D.) W.D.=mm		• CFI Achromat NAMC 10XF (0.25/6.20)	CFI Plan Fluor 4X (0.13/17.20) CFI S Plan Fluor ELWD NAMC 20XC (0.45/8.20-6.90) CFI S Plan Fluor ELWD NAMC 40XC (0.60/3.60-2.80)
Power Cord and AC Adapter		Power Cord Type BE,220-240V I-AC AC Adapter I	Power Cord Type BU,100-120V 4-AC AC Adapter
Operating Environment		Temperature: 0°C+40°C, Humidity: 60% RH max. (at +40°C, no condensation), Indoor use only	

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