



IVF Embryo Observation System CCM-IVF



Embryogenesis can be monitored without embryos ever leaving the incubator!

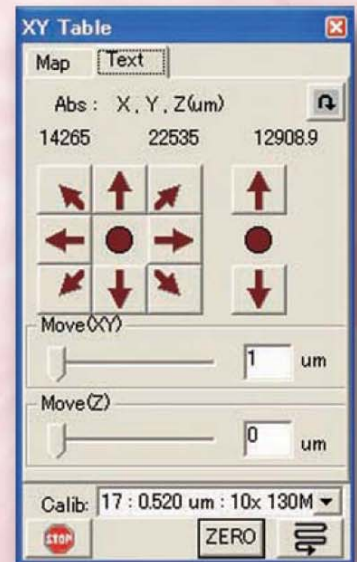
Observing embryos any time without subjecting them to stresses from changes of environment!

Time-lapse imaging with user-friendly software!

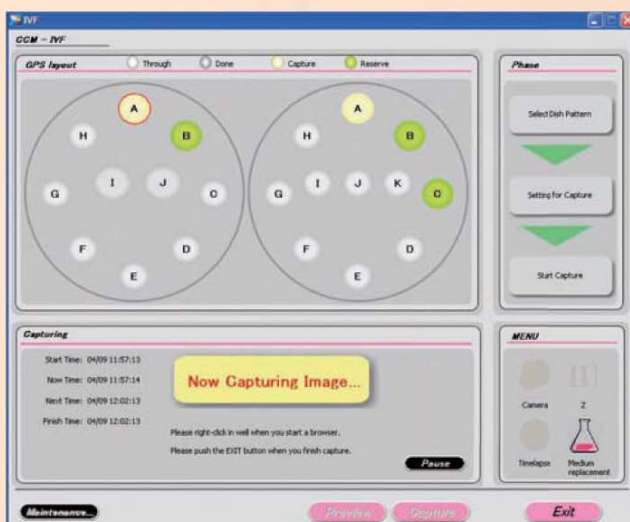
Comprehensive monitoring system with low price!

Features

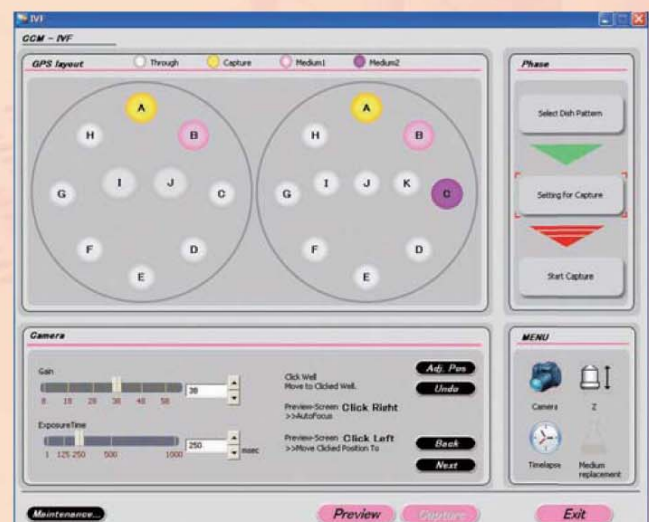
- 1 Two types of culture dishes, specially designed to position embryos at the center, can be set up for monitoring. Selecting an image acquisition pattern will automatically select and color-code appropriate wells.
- 2 From selecting image acquisition patterns through starting time-lapse image capturing, image acquisition parameters can be set without hassle using the step-by-step, intuitive software interface.
- 3 Images of interest can be previewed any time.
- 4 Depending on applications, the Z-Slice Image Acquisition feature can be utilized. The user can define the thickness of a z-slice and the upper- and lower-limit of Z-axis travel distance from a reference point.
- 5 Based on the selected imaging parameters, the software calculates and displays the estimated hard disk space required for the imaging, the hard disk space currently available, and the total exposure time.
- 6 Images taken before and after changing the medium can easily be linked with a few clicks.
- 7 Image Browsing/Processing software ASBRO comes standard with the system and provides various tools like movie tools and annotation tools (text, scale, elapsed time in absolute value or relative value, etc.).
- 8 A grading graph can be created using an off-line analysis tool.



XYZ Stage Control Tool
Set the travel distance and press the arrow button to move the view area in the distance and direction desired.



Culture Dish Selection Window
When one well is selected, other wells will automatically be selected and color-coded according to the selected imaging pattern.



The image can be previewed any time. All the parameter settings (gain, exposure time, etc.) for image acquisition can be made in this window.



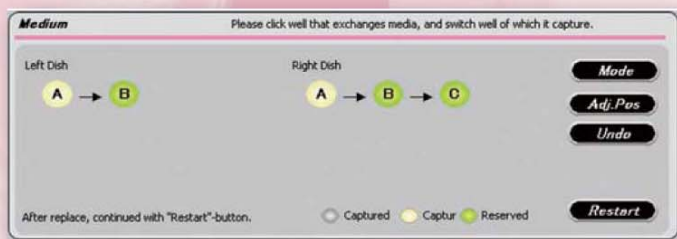
The stage can easily be attached and removed for maintenance.
The culture dishes can be placed one at a time, safely and securely.



※CCM-IVF does not include a computer and a monitor.

Minimum computer requirements:

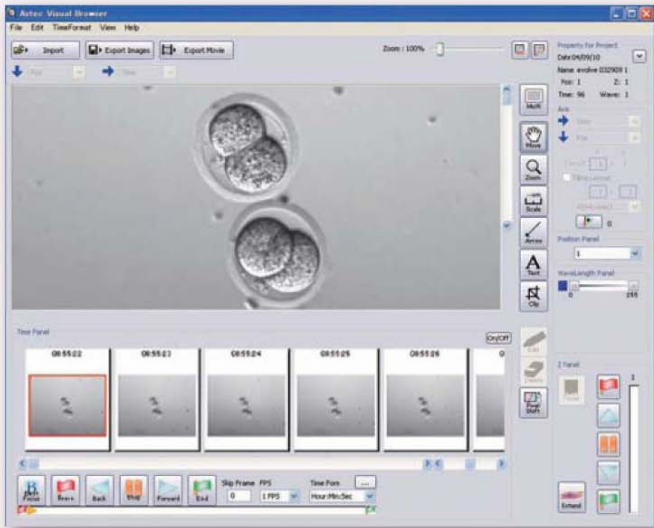
- Windows XP Professional
- CPU 2GHz or above
- 19-inch TFT LCD Monitor 1280 x 1024
- Disk drive: CD/DVD/USB 2x4
- Memory: 2GB or more
- HDD: 320GB or more



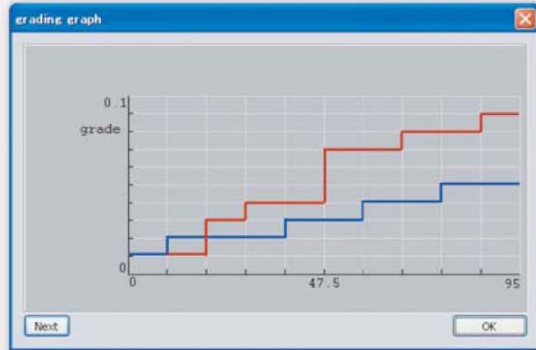
This window provides the image acquisition status of the well for medium change. Position adjustment and restarting image capture can be done smoothly.



Individual images captured at user-defined intervals are saved as log data.
The user can select any time period within the movie file and play that segment with a selected frame rate, which will enable the kinetic and qualitative evaluation of embryo cell division.



Launch ASBRO, import the captured images, and create a movie file.



Thumbnail view allows the user to check the number of blastomeres and create a grading graph.

CCM-IVF Specifications

Incubator	
Capacity	30L
External Dimensions	W615xD410xH510mm
Internal Dimensions	W310xD295xH330mm
Heating Method	Direct heating
Temperature Control Method	Digital PID
Temperature Control Range	Ambient temperature +5°C, up to 50°C
Temperature Uniformity	±0.3°C
Humidifying Method	Natural evaporation
Humidity	95%±4RH
CO ₂ Sensor	Infra-red sensor
CO ₂ Control Method	DUTY control
CO ₂ Control Range	0% - 20.0%
CO ₂ Accuracy	±0.1%
O ₂ Sensor	Galvanic battery sensor
O ₂ Control Method	ON/OFF control
O ₂ Control Range	1.0% - 89.0%
O ₂ Accuracy	±0.5%
Alarms	Temperature, CO ₂ /O ₂ levels
Weight	45kg
Power	AC100V Max4.0A 50/60Hz

Camera Unit	
Resolution	1.3 mega pixels (1280 x 1024)
Image Sensor	CMOS
Objective Lens	10x (NA 0.25)
Field of View	660μm x 530μm
Time-Lapse Interval	1min. - 24hrs.
Illuminating Method	Transmitted light (oblique illumination)
Light Source	Red LED
XYZ Minimum Travel Distance	1μm
Positioning Repeatability	Within 10μm in XY directions

■GPS Dish



Universal GPS



Embryo GPS

All the wells are sloped downward to the center so that the embryo will always be found at the same position.
Endotoxin tested (LAL<0.5EU/mL), 1-cell Mouse Embryo Assay (≥80%)



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