

CellRaft AIR™ System



Fully automated

Imaging, sorting and isolation of single cells with *no minimum sample size requirement*



Application flexibility

Compatible with genomics and cloning workflows



Standard cell culture

CytoSort Arrays keep cells happy and viable, enabling cloning and reducing artifacts



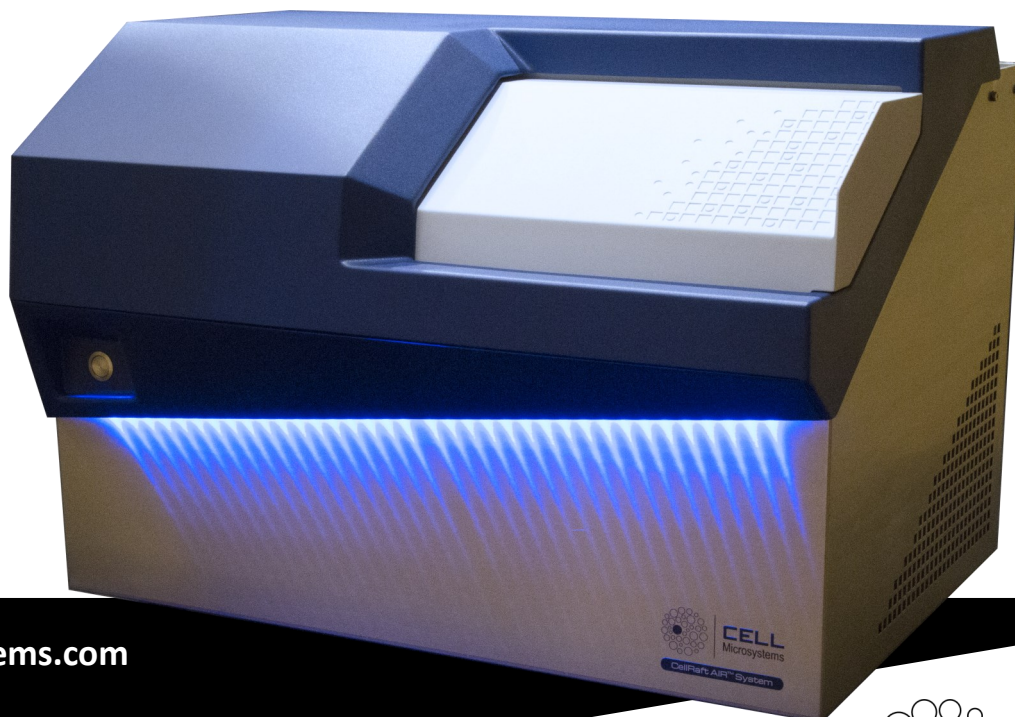
Imaging-based sorting

Detailed image analysis with 3-channel fluorescence

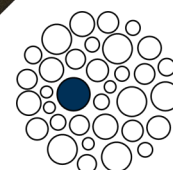


1 hour for 96 cells

Cells sorted into standard multi-well plates and tubes



info@cellmicrosystems.com



CELL
Microsystems

AIR™ Applications

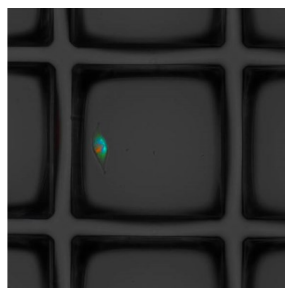
Single Cell RNA-Seq

Copy Number Variation

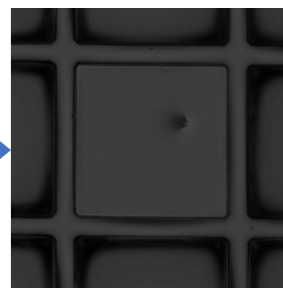
Single Nucleus Sequencing

Genome Editing (e.g. CRISPR)

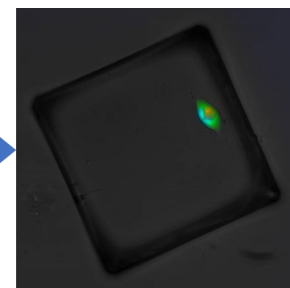
Cloning and Propagation



Identify cell-of-interest via imaging



Release CellRaft from the CytoSort Array



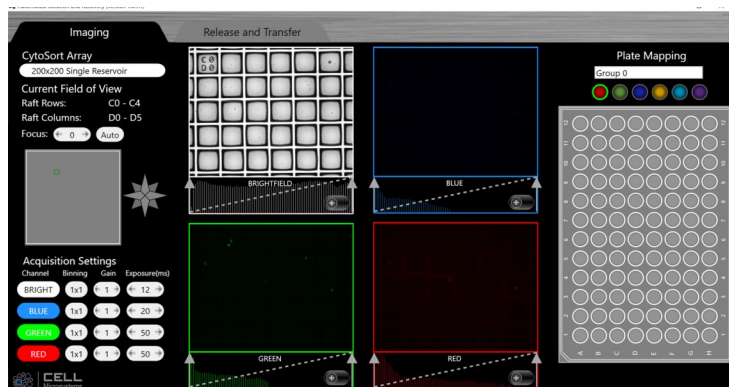
Transfer CellRaft to collection vessel

AIR™ Software

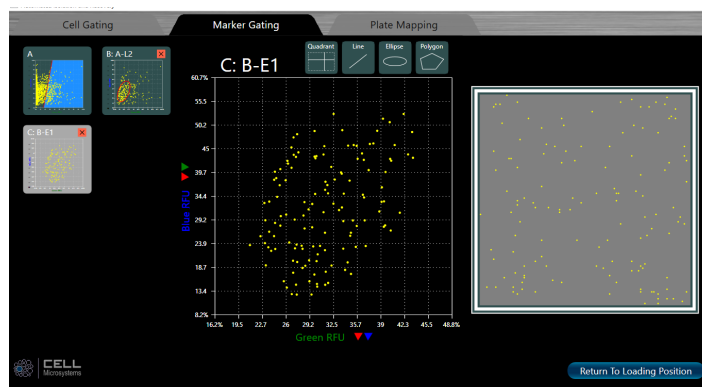
Two run modes are currently available on the AIR™ System software

User Navigation and Selection Mode: Employ the motorized microscope to examine the CytoSort Array for cells of interest, and select them for isolation in a 96-well plate or PCR strip tubes

Cytometric Mode: Scan the CytoSort Array automatically for single cells and use signal intensity histograms and user-defined gates to select cells for downstream isolation.



User Navigation: "Imaging" and "Release and Transfer"



Cytometric Mode: "Marker Gating" using histograms

AIR™ Specifications

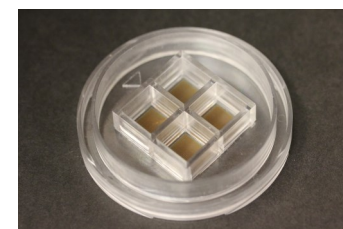
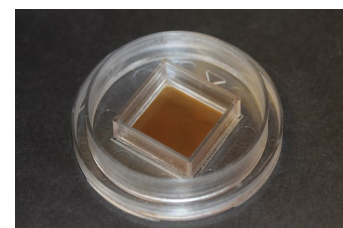
| | |
|----------------|---|
| Size | 20" High by 20" Deep by 27" Wide |
| Weight | 125 lbs |
| Microscope | Brightfield and 3-channel fluorescence; Motorized stage and autofocus |
| Magnification | 8X Total |
| Camera | 1.2 X 1.4 mm field of view; 14-bit; 6 megapixels |
| Power | 115 VAC, 8/4 A, 60 Hz |
| Certifications | ISO 61010, FCC emissions |
| Environmental | 20°C ± 10°C; 40-60% humidity non-condensing |

Excitation (LED-based) and Emission Spectra

| Channel | Excitation | Emission |
|----------------------|------------|------------|
| Green | 456-486 nm | 497-548 nm |
| Red | 555-589 nm | 602-805 nm |
| Blue (UV option) | 355-371 nm | 412-452 nm |
| Blue (Violet option) | 379-410 nm | 412-452 nm |

CytoSort™ Arrays

- Two sizes of CytoSort Arrays are available, comprising either 100 micron or 200 micron CellRafts
- Quad-well CytoSort Arrays are under development for users interested in exposing cells to multiple conditions
- NOTE: CytoSort Arrays are not compatible with manually operated products using the CellRaft technology



Contact us at info@cellmicrosystems.com