

B.SIGHT™

# Streamline Your Single-Bacterium and Single-Yeast Isolation and Cloning



The B.SIGHT is a microbial isolation platform that uses cutting-edge optical microscopy and CYTENA's single-cell dispensing technology to enable isolation of the smallest microbial cells.



**Dual-channel high resolution microscopy:**

Detects even the smallest cells based on size and shape. The system comes with full capability to isolate unlabeled and fluorescently labeled single microorganisms.



**Compatible with anaerobic conditions:**

Small benchtop instrument that integrates into fume hoods and anaerobic chambers. Simply connect the monitor, keyboard and mouse or even use a remote control terminal workstation.



**High-speed isolation of cells:**

Accelerate your microorganism workflows with high-speed isolation of single bacteria or yeast into multiwell plates. Process a 96-well plate in 3 minutes and a 384-plate in under 8 minutes.



**High cell viability:**

The B.SIGHT improves cell viability thanks to fast, gentle and easy-to-use label-free isolation of single bacteria directly into liquid culture or agar.



**Assurance of clonality:** Nozzle images confirm the clonality of dispensed single prokaryotic cells



**Automation ready:** The B.SIGHT lid opens automatically, making the device compatible with robotic automation workflows. The instrument also has a small footprint and can easily be placed in most biosafety cabinets.



**Single-cell genomics of uncultivated bacteria:** Dispense single cells from your complex microbiota sample in picolitre droplets directly into the center of the well in 96- or 384-well PCR plates, enabling downstream miniaturization with lysis buffer volumes less than 1  $\mu$ L.

## Isolate more species with the B.SIGHT

- ✓ Fast high-throughput single-cell isolation and cloning of microorganism
- ✓ Isolate single bacteria in 384-well plate in under 8 minutes
- ✓ Precise deposition of single cells onto PCR plates
- ✓ Assurance of clonality
- ✓ Anaerobic cell isolation and cultivation

## Impact Areas

- ✓ Synthetic biology
- ✓ Single bacteria isolation
- ✓ Single yeast isolation
- ✓ Microbiome research
- ✓ Anaerobic microorganism isolation



Intrigued? Get in touch.



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## Technical Specifications

Samples	Uncultured microbiota, cultured E.coli. and yeast, etc.
Cell size	0.5 – 20 µm
Sorting	Cell morphology or fluorescence
Droplet volume	~50 pL
Substrate	96, 384-well plates, PCR or single well for agar
Compatible plate height	Up to 27 mm (ex: low-profile deep-well plates)
Automated Offset Correction (AOC) for precise positioning of the single cells	Bottom imaging using 5x objective lens Optical resolution 2.2 µm
Nozzle imaging	Camera CMOS Magnification 20x Dual-channel: Brightfield and fluorescence
Fluorescence nozzle imaging	Ex. 488 nm Em. 504 – 596 nm
Processing times	Single-cell dispensing 96-well plate: ~ 3 min Single-cell dispensing 384-well plate: ~ 8 min
Cartridge	EASY.ON 20 µm disposable to avoid cross-contamination
Automation	Lid opening and closing Compatible with standard automation arm and gripper Compatible with third-party automation clients
Embedded computer	Windows
Compatibility	Standard biosafety cabinets class 2, and anaerobic chambers
Footprint	635 x 400 x 286 mm
Weight	40 kg
Certification	CE, CB, UL (TÜV), RoHS

## Resources

Learn more about the power of the platform



Tool &  
Calculators



Application  
Notes



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