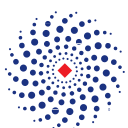


CapitalBio

PersonalArrayer™ 16

— A Flexible, Compact Benchtop Microarrayer



CapitalBio

Introduction

CapitalBio PersonalArrayer™ 16 is a microarray spotter with high flexibility and efficiency. It is equipped with both contact printing and proprietary non-contact dispensing technology. It can be used for proteomics, genomics, clinical diagnostics and food safety testing applications. The arrayer's compact design, various functions and flexible features make it an attractive instrument for your lab.



Key Features

- Compact design
- Dispense volume is adjustable from 10 nL to 50 µL
- Air pressure-driven dispensing ensures no direct contact with slide substrates, providing higher sample recovery and less contamination
- User-friendly software interface: customize your array in the preview setting
- High efficiency pinhead wash: customizable combination of sonicate, water/solvent rinse with high speed peristaltic pump and vacuum dry for printing pins
- Flexibility: users can switch between different modules for different applications
- Active intelligence: automatic identification of slide/plate deck and spotting/dispensing module and automatic fluid level sensing

Specifications

Specifications	Contact Spotting	Non Contact Dispensing
Sample Plate	One 96/384-well plate	
Slide/Plate Capacity	Two 96-well plates, or 16 slides	
Repeat Precision	$\leq \pm 10 \mu\text{m}$	
Spotting Efficiency	384-well plate/2 hours	
Dimension	490×450×390mm (L×D×H)	
No. of Pin/Nozzle	1,2,4 pin (s)	1 nozzle
Sample Uptake Volume	0.25-1.25 µL	3-50 µL
Sample Delivery Volume	10^{-1} - 10^0 nL	10^{-1} - 10^4 nL (adjustable)
Minimum Sample Required	5 µL (384-well plate)	15 µL (384-well plate)
Center-to-center Distance	$\geq 250 \mu\text{m}$	$\geq 1 \text{ mm}$

Less Is More

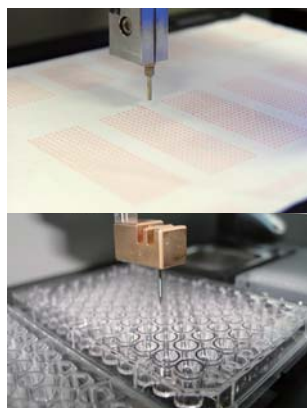
PersonalArrayer™ 16 is a compact benchtop instrument, with all of the advanced features of CapitalBio's family of arrayers. As the youngest member, PersonalArrayer™ 16 further includes features such as plate spotting, automatic identification of interchangeable modules, fluid level sensing, in addition to humidity control, HEPA filter, contact and non-contact spotting.



Innovative fluidic design makes it possible to adopt a smaller peristaltic pump and vacuum pump

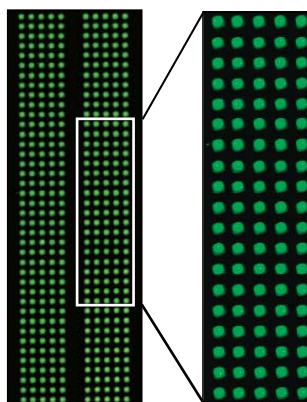


Sensor / Humidifier



Membrane spotting* / Plate spotting:

Bring more possibilities to biochip applications



Arrayer: PersonalArrayer™ 16
Scanner: LuxScan™ 10K-A
Pin: SAP™ 7

Flexible Configurations for a Variety of Applications

General configuration (PA 16/G):

Component	Model	Amount	Component	Model	Amount
Arrayer	PersonalArrayer™ 16	1	Pin Holder	SAPH™ 4	1
Slide Deck	SlideDeck 16	1	Dispenser Module	SANCD1	1
Pin	ArrayIt 956 SMP3	1	Dispenser Control	NDM	1
Nozzle Holder	4-Nozzle	1	Sonicator		1
Nozzle Head		1	Humidifier/Sensor		1
384-well plate		1	HEPA Filter		1

Two standard configurations are available: General (PA 16/G), Contact printing (PA16/P).

The plate deck is available upon request.

* Available for customized configuration

Proven Reliability & Guarantee of Confidence

Dust proof enclosure with four-sided observation window: Top, Front, Left and Right

The wider the window,
the clearer the view

Temperature / humidity sensing for maintaining a stable environment inside the instrument to ensure reproducibility

Power indicator: techno blue LED

Robotic arm for precise and rapid mapping in 3D Cartesian space

Guaranteed reproducibility
and efficiency

96-well or 384-well microplate for sampling of various sources

Sonicator: efficient and effective especially for adhesive molecules

Vacuum dry and rinse: proven wash and dry procedure

Humidifier: to implement humidity control inside the instrument





Functional Diversity & Compatibility

Slide deck will accommodate 16 standard slides, which can be conveniently replaced by a plate deck holding two 96-well microplates, if you want to spot on microplates



Slide Deck



Plate Deck

Flexible configuration from 1-4 pins to 1 dispenser: to meet most of your demands for various applications



Plate chiller*
Maintain the integrity of samples, ideal for protein samples.



Dispenser & Holder



Pin Holder

CapitalBio SAP™ Pin and SAPH™ Pin Holder



- Higher precision machining class
- Compatibility: mutually compatible with commercial-available pins
- Customization: provides different sub models to meet different requirements of spot diameter

* Available for customized configuration



Brand T Pin

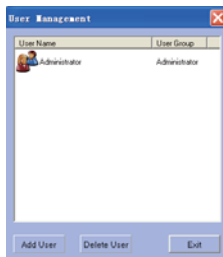
CapitalBio
SAP™ 7 Pin



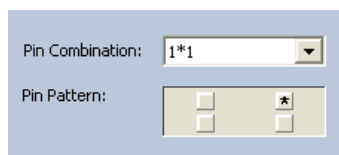
Microscopic Imaging Comparison of Pin Heads

Condensed Application Software

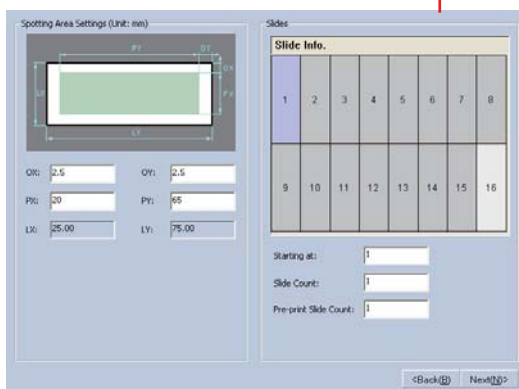
Intuitive and Neat



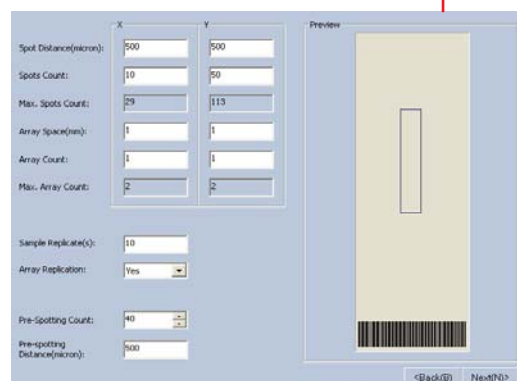
User Management with different privilege configurations provides effective data security



Spot with 1 to 4 (2x2) pin(s) simultaneously to adapt various throughput requirements



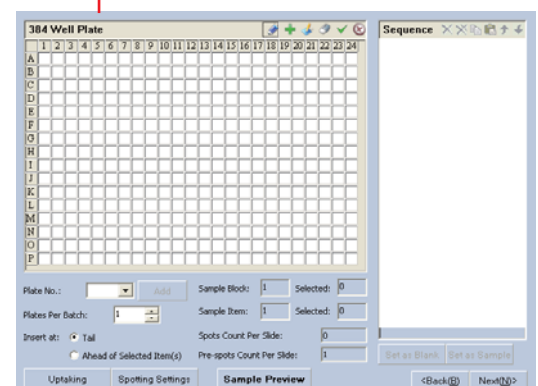
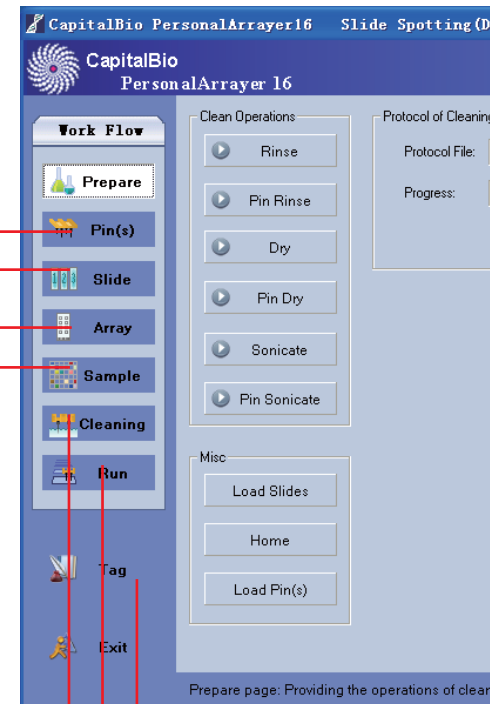
Define slide dimensions and plan a spotting sequence quickly



Customize your microarray in the preview setting to ensure your desired result

Start Screen:

A good beginning makes a good end. The software provides direct control and easily sets up protocols.

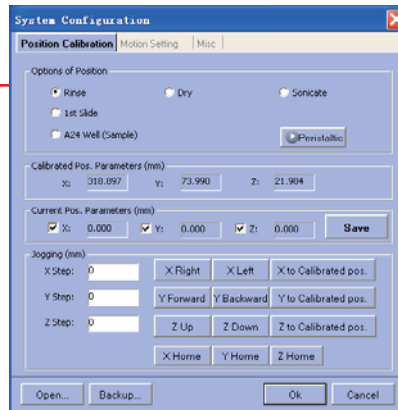
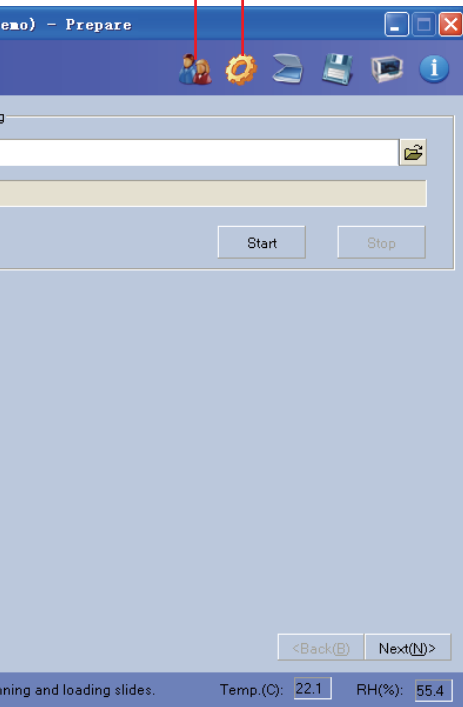


Define sample sources compatible with 96- or 384-well plate and set up reprogrammable sequences for taking samples

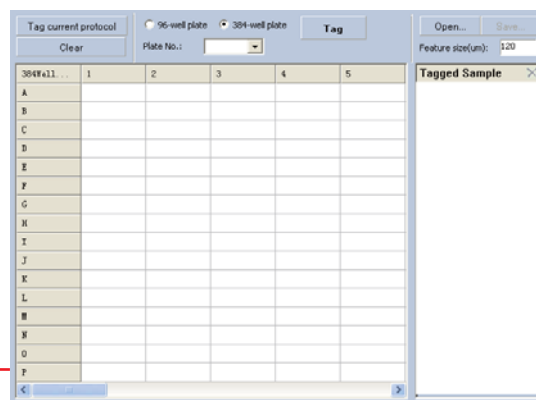


Software Interface

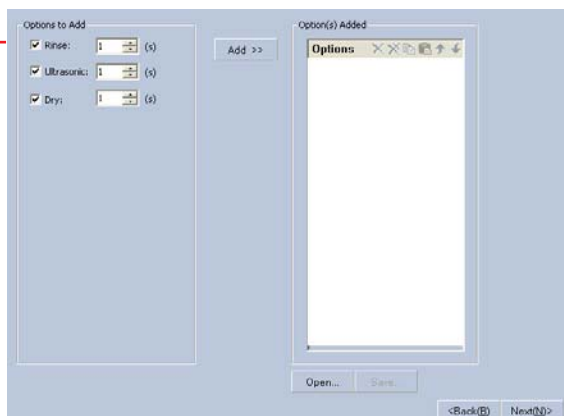
ng. Both
routine



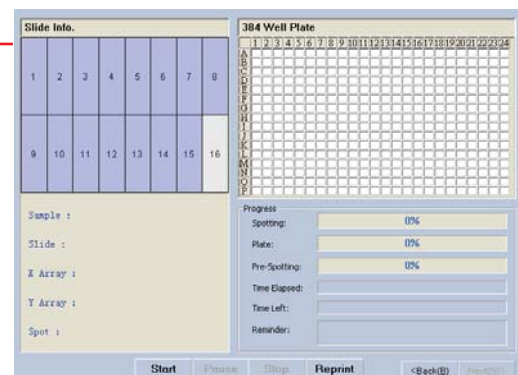
Access configurations to fully
control the instruments and
apply customization options



Sample annotation
provides tracking
history for subsequent
processes and
analyses



Rinse, sonicate and vacuum: triple
guarantee for effective wash



Multiple views to depict run time
information: look for possible flaws,
early detection

Applications

- Fabricate gene chips by either contact spotting or non-contact dispensing
- Fabricate protein chips by either contact spotting or non-contact dispensing
- Compatible with slide spotting and plate spotting; Non-contact Microdispense™ technology applies to biological samples including nucleotides, proteins, and cell fragments
- Applicable for microarray fabrication on membranes

Ordering Information

Cat.No.	Product Name	Description
110070	CapitalBio PersonalArrayer™ 16 Microarray Dual Spotter	Dual systems for contact printing and non-contact dispensing
110072	CapitalBio PersonalArrayer™ 16 Microarray Contact Spotter	Contact printing only
110083	CapitalBio SAP™ 7 Pin	For contact printing
110091	CapitalBio SAPH™ 4 Pin Holder	Holds up to 4 pins (2×2)
420032	CapitalBio OPEpoxySlide™	Epoxy group optimized for protein
420050	CapitalBio PolymerSlide™ A	Amino group optimized for PCR product /oligo
420060	CapitalBio PolymerSlide™ D	Aldehyde group optimized for protein/peptide/oligo



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