

CapitalBio® SmartArrayer™ 136 Micro-assay Chip Production System

New-generation Sample Dotting System Integrating
Contact and Non-contact Type



Product Introduction

CapitalBio® SmartArrayer™ 136 Micro-assay Chip Production System is a new-generation accurate flexible and efficient micro-assay chip preparation system, and mainly used in life scientific research, clinical test, food safety test and other fields, such as proteomics and genomics. It is the effective combination of robotics, hydromechanics, automatic control, precision machining and other technical and biological technologies. The sample dotting system is purposed to meet requirements of life science field for reagent microquantization, operation automation, high speed and high precision. Applying the contact dot probe or non-contact sprayer, the sample dotting system can dot or spray the samples on 96-well plate or 384-well plate to slide or the surface of other mediums.

Product Characteristics and Advantages

- High precision positioning

Neat and uniform high-density array dotting Uniform and stable high-speed sample dotting It can dot the slide, film and 96-well plate

- High quality sample dotting

The volume of sample dotting is adjustable in 10 μ l ~ 50 μ l

The function of sampling depth compensation improves the uniformity of sample dotting

The function of omission re-dotting improves the conformity of sample dotting

The skip-over function supports that the same sample can be dotted in one time, which saves sample volume and sample dotting time

- Highly intelligent procedure design

The slide position can set at will to improve the service life of machine

The pre-dot sample number, sampling position and sampling sequence can be set at will, which is convenient for operation

The sample dotting preview function can avoid the array setting error

It is designed with the function of real-time progress display and sample dotting monitor, and the progress of sample to be dotted and the replacement of sample plate can be displayed

- High efficiency cleaning procedure

The independent control function of delayed cleaning water flowing can effectively avoid cross contamination caused by cleaning

The cleaning procedure is the arbitrary combination of three different cleaning steps: water cleaning, vacuum draining, ultrasonic cleaning (dot probe) / positive pressure drainage (sprayer)

- Higher throughput

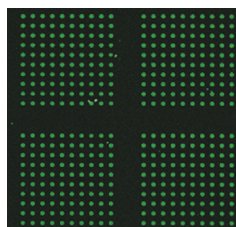
It can dot 136 slides or the surface of other medium in one time

The single-cycle time is less than 4min

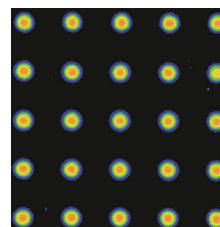
Sample Spray Rendering



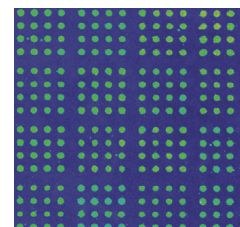
Non-contact sample spray results



Dot the nucleic acid onto slide



Spray the protein onto slide



Spray the protein onto Nylon film

Performance Indicators

Technical Parameters	Contact Dot Probe	Non-contact Sample Sprayer
Sample plate spec.	96/384-well plate * 1	
Slide volume	136 pcs.	
Repeated positioning accuracy	<5μm	<5μm
Single-cycle time	<140s	<160s
Outline size (mm)	Main unit: 1190×1080×1600 (W×D×H); micro-spraying control module: 620×610×710 (W×D×H)	
Dot probe / sprayer number	1 (2, 4, 8, 16, 32 and 48 optional)	1 (2, 4 optional)
Sampling volume	0.25-1.25μl	3 ~ 50μl
Sample dotting volume	10 ⁻¹ -10 ⁰ nl magnitude	10 ⁻¹ -10 ⁴ nl magnitude, adjustable
Minimum sample volume	5μl (384-well plate)	15μl (384-well plate)
Dot distance	≥150μm	≥800μm

(The above technical parameters vary as the sample categories)

Application Fields

- Dot or spray the gene chip
- Dot or spray the protein chip
- Non-contact sample spraying is suitable for nucleic acid, protein, cell debris and many other biological samples, and can be used for slide, film and 96-well plate

Order Information

Product No.	Product Name	Product Description
110040	CapitalBio® SmartArrayer™ 136 Micro-assay Chip Production System	Integrating the contact dotting point and non-contact spraying point
110050	CapitalBio® SmartArrayer™ 136 Micro-assay Chip Production System	Contact dotting point
110060	CapitalBio® SmartArrayer™ 136 Micro-assay Chip Production System	Non-contact spraying point
440010	CapitalBio® Protein Chip Dotting Solution	5ml, 25ml / packaging
440015	CapitalBio® Protein Chip Dotting Solution - A	5ml packaging
440016	CapitalBio® Protein Chip Dotting Solution - B	5ml packaging

The standard configuration covers CapitalBio® SmartArrayer™ 136 Micro-assay Chip Production System software and one computer

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