Aurora
ILLUMINATING SOLUTIONS

VERSA™ 10 Spotter

Liquid Handling

Microarray has huge potential in biotech researches like genomics and proteomics. However, the traditional method in making a microarray chip is time-consuming and laborsome, not to mention the artificial error caused by highly repetitive work. To figure out this problem, automated solution emerged to increase throughput and efficiency, while also lower the cost for experiments.

VERSA 10 Spotter from Aurora Biomed Inc. is an automated non-contact printing workstation. It's equiped with single channel pin head which could customized to 2~40 channels or even more to meet customers need. Meanwhile, washing & drying modules are designed to avoid any cross contamination. The minimum dispensing volume is lower than 20nl, qualified for various bioresearches to provide reproducible results. The deck layout is compatible with various substrates like glass slide, nylon membrane, silicon chip etc. and functional modules as well.

VERSA 10 Spotter is also customizable for drug-eluting microarrays for cell-based screening. To achieve this, temperature, humidity, CO_2 conc. control, and imaging capability are available to be customized on VERSA 10 Spotter, while the positional accuracy could also be customized to be 10-10^2 times higher besides the picoliter dispensing volume.

Single Channel Pin Head

VERSA 10 Spotter

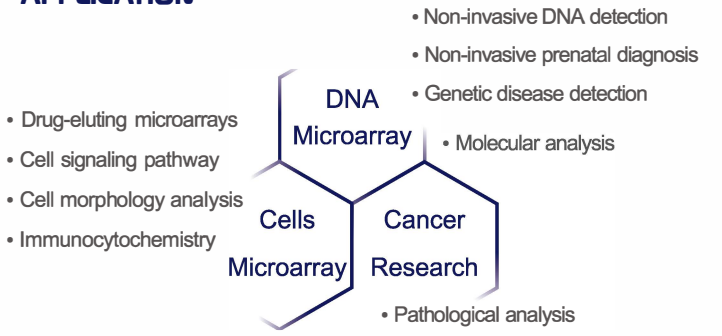
FEATURES

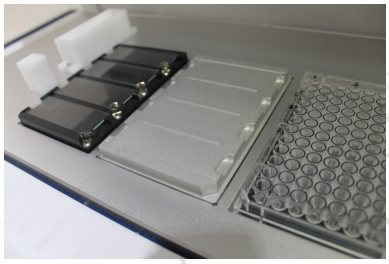
- Single channel printing makes the microarray pattern flexible, while it could also customized to multiple channel to meet each need;
- Aspiration Volume: as high as 1ml;
- Dispensing Volume: lower than 100nl;
- One apiration for thousands of dispensing with high consisitency;
- Multiple Samples: 96/384 well plates, eppendorf tube adaptors for multiple samples;
- Cross Contamination Avoided: Washing and drying modules equipped;
- Safety: HEPA Filtered Hood with UV fluorescent light;
- Software: Microarray layout preview capability.

CUSTOMIZED SOLUTIONS

- humidity control at 30%~55%, avoiding pipeline get clogged by crystallized reagents;
- Temperature and CO_2 conc. Control: providing suitable environment for cell culture;
- Imaging capability are available to be customized on VERSA 10 Spotter for cell morphology evaluation.

APPLICATION





Various Adaptors for Target Plate

SPECIFICATIONS

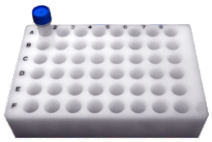
	VERSA 10 Spotter - Non Contact
Deck Capacity	4 deck positions
Liquid Handling	robotic arm with single channel pin head
Positional Accuracy	≤0.05mm,repetitive spotting on the same position
Maximum Aspiration Volume	as high as 1ml, achieving one apiration for thousands of dispensing
Dispensing Volume	100 nL and up
Spotting Diameter	100 - 900 μm
Dispensing Accuracy(CV%)	0.5 μL<5%; 0.1μL<10%
Spotting Density	≥112 spots/cm²
Amount of Glass Slide/Round	1-12 pieces(25mm×75mm)
Compatibility	Various substrates & spotting pattern
Sample Reservoir	Standard 96/384 well plate; Eppendorf tube adaptors
Safety	HEPA Filtered Hood with UV fluorescent light
Size	L650 × D430 × H520 mm
Customizability	In situ cell culture Cell imaging 0.5-5μm dispensing accuracy Picoliter dispensing volume

OPTIONAL MODULES

Glass Slide Adaptor
Capable to carry 4 pieces of glass slides(25X75mm)

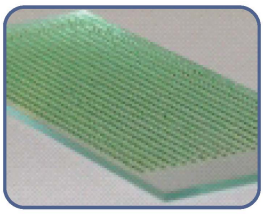
Conical (Eppendorf) Tube Adaptor (4x8)

Reagent Block Cooler A (39 positions with electronics)
Storing buffers, reagents & enzymes at 4°C. The reagent block keeps the reagents at controlled temperature 2°C-90°C. Contains 0.2mL, 0.5mL, 1 5mL & 7 mL.

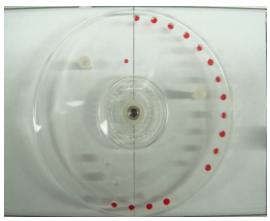


Vial Adaptor
6X8 (32mmX9mm vials, 2.0mL, plastic)

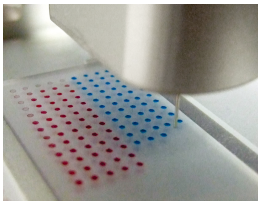
VERSA Spotter Performance on Different Patterms / Substrates



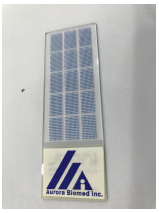
Glass Slide Printing



Non-Contact printing on disc



Non-Contact Microarray Printing on Glass Slide



Non-Contact Spot on MALDO-TOF Target Plate