



VERSA™ Spotter Workstation for Solid-Phase Peptide Synthesis

Peptide synthesis involves linking of multiple amino acids via peptide bonds for the production of peptides. This process mimics the biological process of producing long peptides (proteins). In solid-phase peptide synthesis (SPPS), the peptide is 'immobilized' on a solid surface and can be retained during washing of liquid-phase reagents and synthesis by-products. Solid-phase peptide synthesis also allows the synthesis of natural peptides which are difficult to express in bacteria, the incorporation of unnatural amino acids, and peptide/protein backbone modification. In addition this process permits the synthesis of D-proteins generating extremely high yield in each step and provides a solution problems associated with sequence dependent synthesis.

Aurora's VERSA Spotter is an automated liquid handling platform, capable of performing automatic pipetting for sub-microliter dispensing and arraying applications in contact printing applications. This system spots Fmoc or t-Boc amino acid residues in dimethylformamide (DMF) on to solid surfaces, such as membranes, slides, filter paper or any other suitable array surface, in user-defined sequences. This workstation enables the reliable synthesis of different peptides in a simple and reproducible manner with extremely high yield and accuracy. The robotic arm is controlled by an external computer, allowing the user to micro-control the desired range of movement, sequence of individual peptides and standardize the spacing between spots.

Specifications

Robotic Arm: A single rapid three-dimensional (X, Y, Z) robotic arm with movement precision ranging between 100-200 microns.

Array Head:

- **Single Channel NanoSyringePipettor:** Single channel aspiration and dispensing function. Dispensing range: 30 nL - 300 µL. (Ask about larger volumes.)

Wash Station: Two positions are provided. The first position provides flushing and washing of the pin in order to avoid cross-contamination between different compounds. The second position is the drain for extra volume dispensing.

Deck: Has 4 positions for spot printing onto membranes, and can be customized for different combinations of surfaces. Please discuss your requirements with your authorized sales representative.



VERSA Spot Printing Workstation (Contact Printing)



Cutout shows NanoSyringePipettor Head

Features

- Highly customizable deck
- Nano-precision dispensing
- No impact on sensitive surfaces
- User friendly software interface
- Performs desired spotting procedure irregardless of the starting material and substrate used
- Most common spotting techniques can be efficiently automated
- Works on any array surface including slides and membranes

Applications

- Protein/Peptide arrays
- Nucleic acid arrays
- Miniaturized assays
- Microarrays of solutions and reagents

NOTE: Instrument specifications may change without notice as an ongoing effort of product improvement.

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Contact Spot (Array) Printing