

Automated Protein Crystallography Plate Setup using VERSA™ Mini

Protein crystallography is commonly used for structural biology applications such as preclinical chemistry and target validation. Sample preparation for protein crystallization is a critical bottleneck as conditions for crystallization must be refined very carefully. Proteins typically will only form crystals when exposed to a precisely optimized set of conditions. This requires multiple serial dilutions and multiple replicates in order to test different combinations and concentrations of salts, buffers and precipitants. Manually preparing these reaction test plates is time consuming and error prone. Automation of such processes improves throughput, reliability and efficiency while reducing waste.

Aurora's VERSA Mini workstation provides an automated platform for carrying out applications for preparing protein crystallography plates, such as:

- Plate reformatting
- Filling plates with polyethylene glycol (PEG) solution
- Serial dilutions

Automated, software controlled serial dilution options enable the user to configure a precise gradient of conditions by automatically calculating the required concentration of buffer, salts and precipitants to be dispensed into crystallization plates. A library of built-in plate types in the software allows the user to select their desired plate

The customizable and versatile nature of the VERSA Mini workstation and it's accompanying software make this instrument suitable for front-end protein crystallization protocols such as sitting drop vapour diffusion protocols, hanging drop vapour diffusion protocols and micro-batch protocols.

The VERSA Mini workstation supports many specifically defined test conditions and can aspirate and dispense a variety of liquids and viscous solutions.



VERSA Mini Workstation





Protein crystals

Features

- Dual-head liquid handling module has bulk dispensing capabilities for polyethylene glycollike (PEG-like) solutions and viscous liquids
- · User friendly software for quickly building sequences for serial dilution, reagent addition, plate reformatting & master-mix preparation
- Electronically controlled shaker or plate cooler / heater options allow researchers to test many variables and conditions
- Interchangeable deck positions supports wide range of crystallography plate options
- Customized HEPA/UV hood minimizes contamination and protects crystal samples
- See the VERSA Mini workstation flyer for detailed product information or contact your dedicated Aurora sales representative
- NOTE: Instrument specifications may change without notice as an ongoing effort of product improvement

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