# Prelude<sup>®</sup> X

Parallel Synthesis and Rapid Heating



www.gyrosproteintechnologies.com



## Prelude® X Peptide Synthesizer

PurePep<sup>™</sup> Pathway "Inside": The design power of the proprietary PurePep Pathway (valve block system) results in zero dead volumes, no crosscontamination, and worry-free performance that lasts for years.

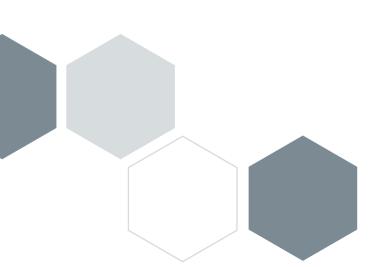
- Heated RVs Improve Difficult Syntheses
- Real Time UV Monitoring
- Fast Efficient Couplings
- Oscillation Mixing and N<sub>2</sub> Sparge
- Flexible Synthesis

#### 6 PARALLEL REACTION VESSELS

- Independent heating in each reaction vessel
- Up to 3 reaction vessels may be used as pre-activation chambers
- Controlled heating between 25°C and 90°C
- 0.005 1mmol scale per reaction vessel
- Optional UV monitoring in RV position 1
- Top-down washing

### AUTOMATIC CLEAVAGE

- TFA bottle only pressurizes during fluid delivery for increased safety
- 50 mL collection tube capacity
- Customizable cleavage programs
- Adjustable start times





## 27 AND 6 ADDITIONAL AMINO ACID POSITIONS

- Single-Shot<sup>™</sup> delivery feature for special amino acid additions
- Low to no prime volumes
- 10, 120, and 400 mL sizes available
- Pre-Packed amino acid bottles available

### **8 SOLVENT POSITIONS**

- Maximize flexibility
- Timed and sensor deliveries
- Dedicated TFA positions remain vented when not in use
- Automated cleaning routines

## Fastest High Quality Performance

### RAPID INDUCTION HEATING



- Seconds to reach temperature on all 6 RVs
- Controlled heating between 25°C and 90°C
- Choose temperature for each deprotection and coupling

## REAL TIME UV MONITORING

- Saves solvent
- Increases yield and purity
- Decreases purification bottleneck
- Extends deprotection when needed
- Deeper knowledge of difficult peptide
- Monitors reaction in vessel and not the waste
- Get the right peptide the first time

## OSCILLATION MIXING

- Creates even heating profile
- No hot spots or burnt resin
- Better than N<sub>2</sub> sparge alone
- Keeps resin off side walls and in solution



## Prelude X Specifications

Number of reaction vessels 6 (3 with pre-activation option), no resin loader required

Synthesis scale range 0.005 - 1 mmol per reaction vessel, (6 mmol in total)

**Reaction vessel volume** Plastic, disposable - 10 mL, 45 mL

Borosilicate glass - 10 mL, 25 mL, 40 mL

Number of solvent positions/sizes 1 primary solvent, 8 L capacity

7 user-defined solvent positions, 1 x 4 L & 6 x 1 L capacities;

inquire about other sizes

Number of amino acid positions 27 amino acid bottles plus six Single-Shot only positions for specialty reagents

10 mL (for standard or Single-Shot delivery for specialty reagents),

120 mL, and 400 mL sizes

Pre-packaged and empty bottles available

Chemistries supported Fmoc, t-Boc, organic, peptoid, combinatorial, branched, PNA

Activation HBTU, HATU, HCTU, TBTU, PyBOP, DIC/OxymaPure, DIC/HOBt, others

Throughput User defined

Fluid measurement technique Selectable fixed loop measurement with optical sensors for amino acids and

reagents, timed delivery of solvents

Fluid transfer method Positive pressure with nitrogen

Top-down washing

Agitation method Nitrogen bubbling - adjustable, and/or adjustable optional oscillation mixing

Induction heating with IR pyrometer temperature sensing

Cleavage Automated on-board cleavage, separate fluid path and vent

Waste container (1) 20 L D.O.T rated container with over-flow sensor in cap

Control interface Proprietary Prelude X control software, internal CPU, external keyboard,

mouse, flat panel monitor

Reporting Real-time log of each instrument function, print to file or printer

**Power** 115 VAC/60 Hz or 230 VAC/50 Hz

**Dimensions** 34.5"W, 28"D, 36.25"H (87.6 cm W, 71 cm D, 92 cm H)

Weight Approximately 260 lbs. (118 kg)

Warranty One year, parts and labor

**Optional** Dynamic Sequence Programming

E-mail-Text Message Status Reporting

UV Monitoring Induction Heating

Pre-activation Programming

Oscillation Mixing

## **ORDERING INFORMATION**

Catalog #	Description
PPX-110/230	Prelude X Multiple Synthesizer, with cleavage, 110/230 VAC, 50/60 Hz

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