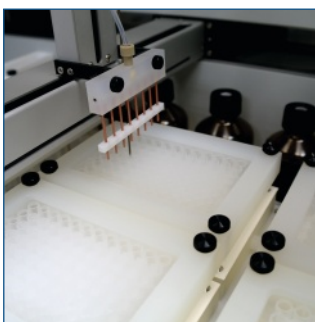
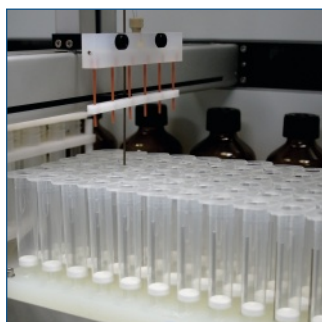


MultiPep RSi

Highly Modular 5 in 1 Parallel Peptide Synthesizer



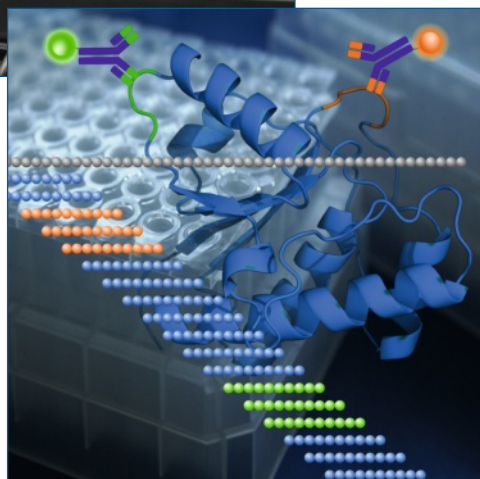
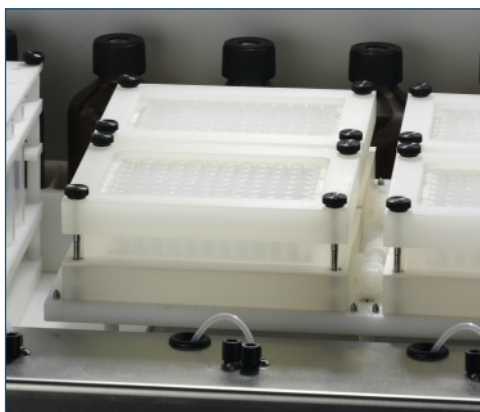
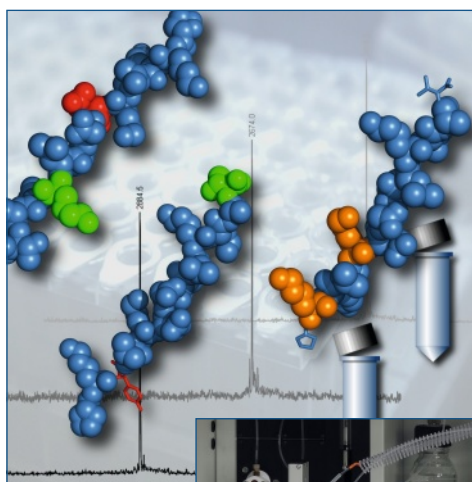
Parallel peptide synthesis

The **MultiPep RSi** is a fully automated high-throughput peptide synthesizer. Utilizing exchangeable modules, the **MultiPep RSi** can be configured as a 5-in-1 synthesizer that enables the synthesis of peptide arrays, peptide sets, specialty peptides or PNAs in small scales as well as high quality peptides in large scales, up to 7 mmol if all 72 columns are used. The instrument covers the requirements of core facilities, research laboratories and custom synthesis houses. Switching from one module to another is accomplished in a matter of minutes.

Up to 6 solvent positions and 13 additional reagent bottles guarantee the flexibility to run complex protocols.

Thousands of peptides in one run

- Arrays with hundreds of peptides
- Peptide sets / libraries in 4x 96-well plates
- Up to 72 peptides (10-100 μmol per column)



Principle of operation

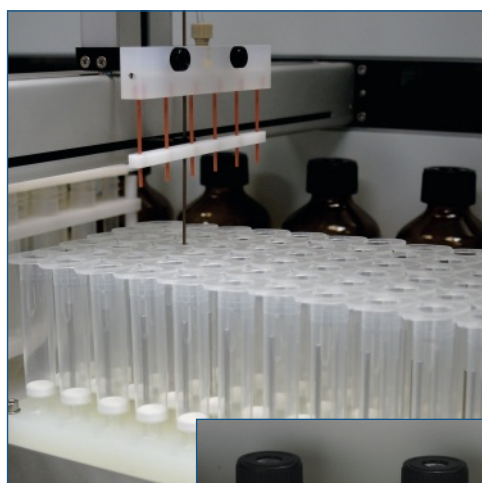
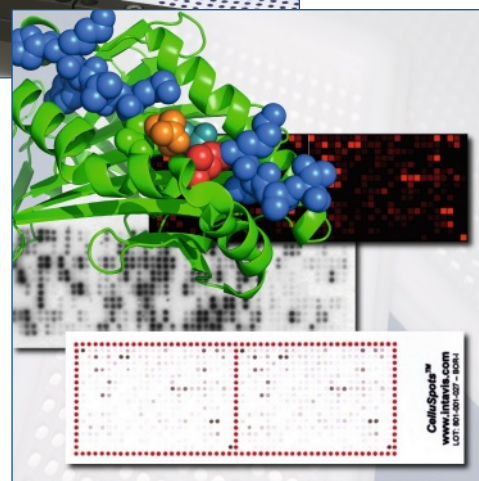
The **MultiPep RSi** is based on a pipetting robot with a single needle and a multi-channel manifold for rapid solvent delivery and washing via a robust pump connected to a ceramic 6-port valve. During solid phase peptide synthesis (SPPS) derivatives, reagents and solvents are distributed to columns, mini-columns or plates filled with synthesis supports. After the appropriate reaction or washing time, solvents are extracted by vacuum-assisted draining through the filter of each column or well.

- **Versatile:** five different synthesis modules
- **Fast:** parallel synthesis
- **Easy to use:** intuitive software
- **Flexible software:** access to all parameters
- **Mixing:** variable column vortexing (optional)
- **Inert gas:** for reagents (optional)

Synthesis of peptide arrays

Peptide arrays are powerful and economic tools for epitope mapping, protein interaction and inhibitor studies. The **MultiPep RSi** can be used for the synthesis of membrane bound peptide arrays (SPOT method) or in combination with the **Slide Spotting Robot** to generate hundreds of identical **CelluSpots™** peptide arrays on coated microscope slides ¹⁾. In a couple of days, ready-to-use peptide arrays with up to 600 peptides on one membrane can be generated. The **MultiPep RSi** can be used to synthesize up to 2400 peptides on 4 membranes during one synthesis run.

- Epitope mapping
- Protein interaction studies
- Binding domains
- Vaccine development
- Receptor binding



Libraries and quality peptides

Column module

The column module allows the parallel synthesis in up to 72 disposable filter columns at 10-100 μmol scale. Vortexing and heating options ensure reliable agitation of reagents and resin and optimized reaction conditions at larger scales.

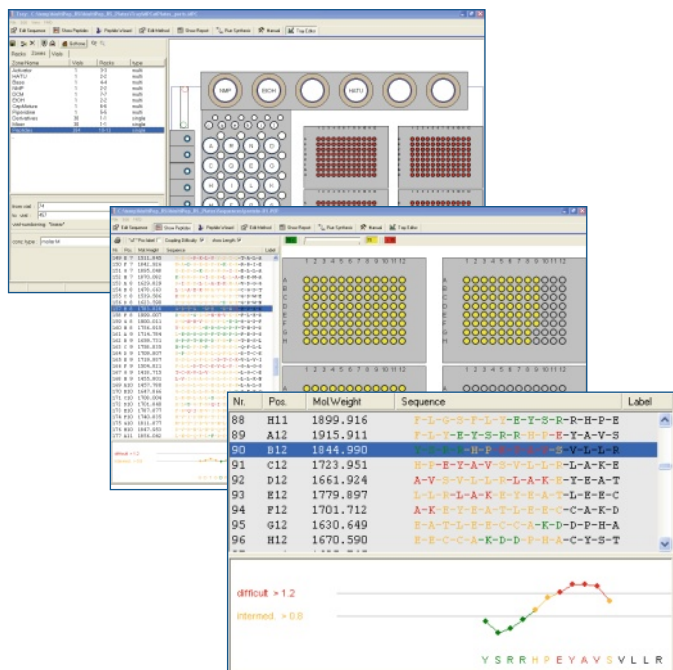
- 2 ml or 5 ml columns for 10-100 μmol scale
- Software controlled vortexing speeds
- 72 position thermo-block

Plate and mini-column module

Peptide libraries or large sets of peptides can be synthesized in up to four 96-well filter plates in parallel. For smaller numbers of specialty peptides or PNAs, the mini-column module with different column sizes offers a high flexibility.

- 96-well filter plates for 1-10 μmol scale
- Up to 384 peptides in one synthesis run
- Up to 4 mini-column blocks with 24 positions

¹⁾ CelluSpots™ and SPOT synthesis methods are subject to certain licensing conditions.



Intuitive operation software

The **MultiPep RSi** is operated by Windows™ based software running on a standard PC.

- Graphical user interface
- Import and export of sequences
- Preconfigured synthesis protocols
- Easy method development
- Calculation of reagent consumption
- Real-time display of instrument operation
- Detailed documentation of each run
- Prediction of "difficult sequences"

Specifications

- Solid phase Fmoc peptide synthesis
- Activation by PyBOP, HBTU, DIC/HOBt or similar chemistries
- Pre-activation in dedicated vials with freely defined times
- Rapid washing by manifold with 6 selectable solvents
- Optional inert gas for reagent bottles

- Detailed specification of synthesis parameters
- Vacuum extraction of reagents and solvents
- Open access to the work area during operation
- Closed cabinet with built in exhaust fan
- Up to 13 additional reagent positions available

Available modules:

96 well plate synthesis module:

Synthesis scale: 1 - 10 µmol
Number of peptides per run: up to 384 (4x 96)

Mini-column synthesis module:

Synthesis scale: 1 - 15 µmol
Number of peptides per run: up to 96 (4x 24)

Column synthesis module with optional shaker (software controlled variable vortexing speeds):

Synthesis scale: up to 100 µmol per column
Number of peptides per run: up to 72

Automated *CelluSpots™* or SPOT synthesis modules:

Number of peptides per run: up to 2400 (on 4 membranes) / up to 1536 (4x 384 *CelluSpots™* disks)
Chemistry: HOBt/DIC with pre-activation or OPfp-ester

Number of reagents: up to 13 (2x 1 - 10 L / 5x 50 - 750 ml / 6x 200 ml)
Number of derivatives: racks with 25, 30 and 48 vessels and dedicated mixer vials are available
rack 1: 24x 50 ml & 6x 10 ml; rack 2: 20x 120 ml & 5x 35 ml;
rack 3: 48x 13 ml & 48x 1.8 ml; custom made racks (optional)

Power: Voltage: 220/240 V, 50 Hz or 110/115 V, 60 Hz
Dimensions: 76.2 x 72.6 x 81.0 cm (width x depth x height) [30.0 x 28.6 x 31.9 inches]
Weight: 110 kg (240 lbs, work area included)

More information: Please contact us at info@intavis.com or visit www.intavis.com

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