Synthra MChelate (Catalog No. 013)

synthra

Synthra MChelate is a completely automated synthesis system for routine production of [^{68}Ga], [^{90}Y], [^{177}Lu] and [^{89}Zr] labeled peptides. With the easy-to-use configuration software SynthraView it's simple to automate the synthesis. The Synthra MChelate module offers both, fully automatic and manual modes of operation.

Labeling Possibility Examples

✓ **Peptide application: DOTATOC** or **DOTATATE** can be labeled by heating 50 nmol of peptide at pH 3.5 - 4.2 for 5 min at 95 °C. For purification, the reaction mixture is passed over a C-18 cartridge to avoid any potential metal breakthrough.

- **[^{68}Ga] Labeling:** The automated synthesis takes about 20 minutes with a decay-corrected yield of about 50%.

- **[^{177}Lu] Labeling:** The automated synthesis takes about 15 minutes with a decay-corrected yield of >70%.

✓ **[^{89}Zr] solution application:** Monoclonal antibodies (mAbs) conjugated with DFO can be labeled fully automated at room temperature in 60 min. The reaction mixture can be purified and desalted using a PD-10 SEC column.

General Features

✓ **Heating and cooling capabilities**

- One heating zone with cooling capabilities

- Temperature range: RT – 200 °C

✓ **Detectors and controllers**

- Two shielded radiation detectors

- One pressure sensor

✓ **Build-in vacuum pump** (< 250 mbar)

✓ **Dispensers and valves**

- HR-dispenser (up to 50.000 steps, 2.5/5 mL)

- Chemically inert valves with small dead volume < 35 µL, 5 bar rated

✓ **Dimensions** (w x d x h): 24 × 30 × 35 cm

✓ **Weight**: approx. 15 kg

Synthesis Features

✓ **Six reagent vials**

- Four small (1 – 3 mL) and two large (10 – 15 mL) volume glass vials for reagents

✓ **Two cartridge holders**

✓ **SPE unit** for final product formulation

Additional Synthesis Options

➔ **Product solvent evaporator**
(Catalog No. 000pse)

➔ **[^{18}F] option** with [^{18}O]water recovery system (Catalog No. 013f)

GMP Features

✓ Synthesis files for various radiotracers available

✓ **GMP compliant**. Electronic control and data collection (27/18 channels)

✓ **21CFRpart11** & **LIMS** compatible

Terminal Control

✓ A laptop (Win 10 Pro) with preinstalled controlling software SynthraView is included

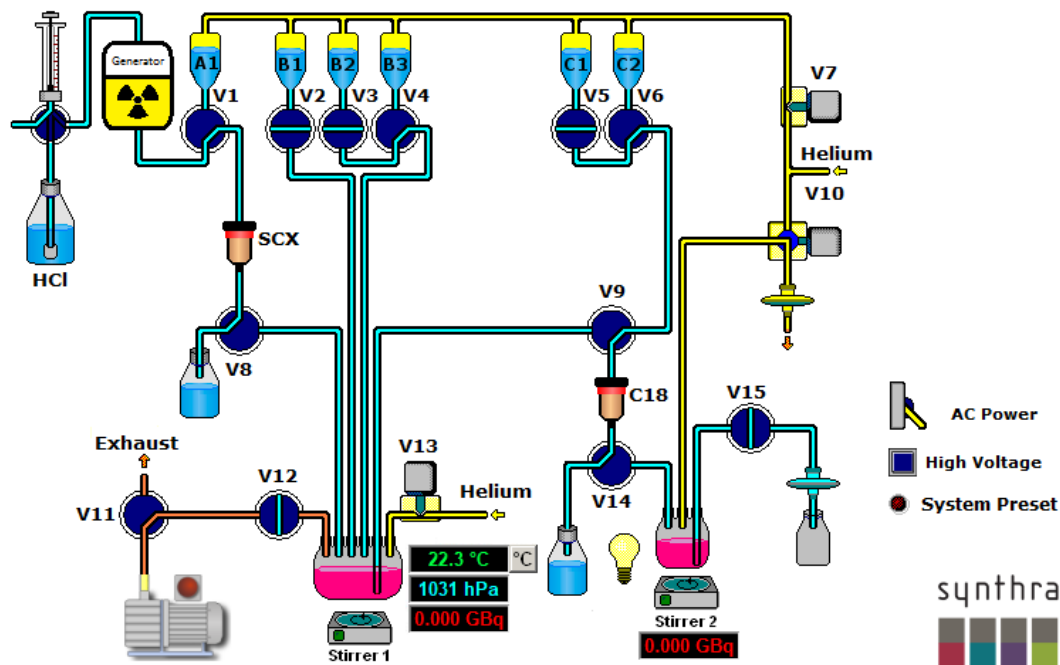✓ Four digital inputs for communication with external devices upon request

MChelate

The Graphical User Interface (GUI) of the SynthraView software.