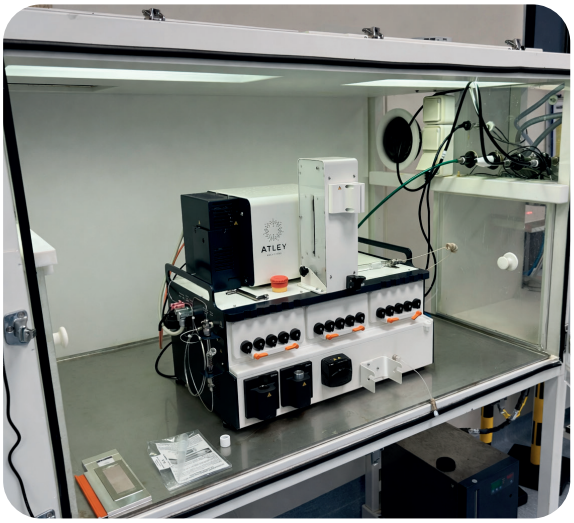
ATLEY
SOLUTIONS

ATLEY C100

The world's first and only commercial manufacturing system for At-211 radiopharmaceutcials



- Automated At-211 **Purification & Radiolabelling**
- **Decreases radiation safety risks** as well as development time for At-211 radiopharmaceuticals
- Enables the de-centralized radiopharmaceutical supply chain required for **multi-center research** and **commercial applications**
- **Disposable fluid pathway**, customizable for a range of radiolabeling methods and targeting molecules

Fact Box: Atley C100

- **Regulatory Compliance:** CE mark & CB certificate of compliance to IEC 61010-1.
- **At-211 Purification Yield:** >80% (n.d.c.)[1].
- **At-211 Purification Time:** <20 minutes[1].
- **Launch Year:** 2024, with sales across three continents.

Technology

The patented[2] Atley C100 module delivers automated, standardized, and reproducible manufacturing of At-211 radiopharmaceuticals. Its process involves two key stages: purification of At-211 from irradiated targets through dry distillation, followed by automated radiopharmaceutical synthesis and purification.

1. Purification Process:

Starting with an irradiated Bi-209 target, the Atley C100 efficiently purifies At-211 through a "Gold standard" dry distillation process. The final elution step of the purification is highly flexible, allowing the use of different solvents to suit specific downstream radiochemistry processes. This purification process is completed in less than 20 minutes and achieves a non-decay-corrected yield of minimum 80%[1].The resulting At-211 solution contains minimal impurities, ensuring exceptional quality for subsequent synthesis steps.

2. Radiopharmaceutical Synthesis & Purification:

Automated radiolabeling on the Atley C100 uses a peristaltic pump and 3×5 valves to precisely dose reagents into a reactor vial. The reactor can be actively heated and agitated for optimal synthesis conditions. A position for a purification column equipped with an in-line radiodetector ensures final purification of the radiolabeled compound. The fully disposable fluid pathway enhances regulatory compliance and allows for a seamless transition from non-clinical to clinical manufacturing. Atley Solutions supplies all necessary consumables for use with the Atley C100.

TECHNICAL SPECIFICATION OF THE ATLEY C100

Inlet Power (EU version)	220-240 V ac, 50 Hz, Max. 1250 W
Inlet Power (US version)	100-120 V ac, 50–60 Hz, Max. 1250 W
Total Dimensions (WxDxH)	605 mm × 435 mm × 535 mm
Minimum Installation Dimensions (WxDxH)	1200 mm × 660 mm × 850 mm
Weight	40 kg
Operating Environment	Indoor; 15–25 °C; 20–60% RH

Safety

Operator safety is a cornerstone of the Atley C100's design. The system is engineered to comply with international safety standards and minimize the risk of radiation exposure:

→ Operation Under Negative Pressure:

The system operates under negative pressure, ensuring that any leaks result in air being drawn into the module rather than radioactive material escaping.

→ Gas Filtration:

All gases used or generated are routed through two activated carbon filters. Both filters are monitored with radiodetectorsto identify trapped radioactive material.

→ Operation in Closed Environment:

The Atley C100 must be operated within a gas tight enclosure, providing an additional protective barrier between radioactive materials and the operator.

[1] Performance achieved using the Atley C100 in Atley Solutions' own lab - as several factors impact purification performance, similar performance cannot be guaranteed
[2] US10,829,423 // US11,851,383 // US19/126953 (pending)

Expertise & Solutions for At-211 Radiopharmaceuticals

Atley Solutions provides a range of products and services tailored to accelerate the development of At-211 radiopharmaceuticals. Visit **atley.com** for more information.

atley.com

ATLEY SOLUTIONS

Atley Solutions AB • Medicinaregatan 8B, 413 90 Gothenburg, Sweden
info@atley.com • +46 (0) 10 750 08 11 • atley.com