

¹⁷⁷Lu **Lutetium-177 Chloride** Radiochemical (n.c.a.)

Lutetium-177 (Lu-177) is a radioisotope used in targeted radionuclide therapy to treat certain neuroendocrine tumors and prostate cancer. Lu-177 can be combined with tumor-targeting vectors that guide the isotope to diseased cells within the body and attaches to them. As the isotope undergoes radioactive decay, it delivers a large dose of beta particles that can destroy the surrounding diseased cells.

Process Data

Target

¹⁷⁶Yb

Nuclear Reaction

¹⁷⁶Yb (n, γ) ¹⁷⁷Yb → β- ¹⁷⁷Lu

Product Specification

Half-Life

6.65 days

Chemical Form

Lutetium-177⁺³ in 0.04N hydrochloric acid

Specific Activity ⁽¹⁾

≥ 2900 GBq/mg

Activity Concentration ⁽¹⁾

≥ 137 GBq/mL

⁽¹⁾ Activity calibration is at 12:00 EST on day of manufacture

Radionuclidic Purity

@ Reference Date and Time

(12:00 EST on day of manufacture)

Lu-177 ≥ 99.9%

Lu-177m ≤ 0.07%

Yb-175 ≤ 0.1%

All other radionuclidic impurities ≤ 0.01%

Radiochemical purity

Lu-177⁺³ ≥ 99.9%

Chemical Purity

Cu ≤ 1.0 ug/GBq

Fe ≤ 0.5 ug/GBq

Pb ≤ 0.5 ug/GBq

Zn ≤ 1.0 ug/GBq

Yb ≤ 0.5 ug/GBq

Endotoxins

≤ 20 EU/mL

Sterility

Sterile

Shelf-Life

9 days from Production Date

Primary packaging

Glass Vial (10 mL)

Product Origin

Ottawa, Canada

BWXT Medical Advantage



- Robust, scalable supply chain leveraging multiple irradiation services providers and target irradiation capabilities on a commercial power reactor.
- Expertise, infrastructure, and distribution capabilities to support worldwide growth of these important therapies.
- World-class delivery service with over 40 years of experience delivering nuclear medicine products across the globe.

Other BWXT Medical Products:

- Indium (In-111) Oxyquinoline Solution (US only)
- Indium-111 Chloride Radiochemical
- Iodine-123 Sodium Iodide Radiochemical
- Iodine-123 Sodium Iodide Oral Solution (Canada only)
- Germanium-68 Chloride Radiochemical Solution
- Strontium-82 Chloride Radiochemical Solution
- Actinium-225 Chloride Radiochemical

People Strong
INNOVATION DRIVEN >

BWXT Medical Ltd. provides its customers, who conduct life-saving medical procedures for patients around the world, the benefit of decades of experience in the development, processing, packaging and delivery of medical isotopes, pharmaceuticals and medical devices. Headquartered in Kanata, Ontario, BWXT Medical employs approximately 300 highly skilled people in Kanata and Vancouver, British Columbia. BWXT Medical is part of the commercial operations segment of BWX Technologies, Inc. (NYSE:BWXT), headquartered in Lynchburg, Virginia, U.S.A. BWXT is a leading supplier of nuclear components and fuel to the U.S. government; provides technical and management services to support the U.S. government in the operation of complex facilities and environmental remediation activities; and supplies precision manufactured components, services and fuel for the commercial nuclear power industry. With approximately 6,600 employees, BWXT has 12 major operating sites in the U.S. and Canada. In addition, BWXT joint ventures provide management and operations at more than a dozen U.S. Department of Energy and NASA facilities. Follow us on Twitter @BWXTech and learn more at www.bwxt.com.

The information contained herein is provided for general information purposes only and is not intended nor to be construed as a warranty, an offer, or any representation of contractual or other legal responsibility.

The products and services described herein are provided by the subsidiaries of BWX Technologies, Inc.

© 2024 BWX Technologies, Inc. All rights reserved.

medical.bwxt.com



BWXT Medical

447 March Road
Ottawa, ON, Canada K2K 1X8

Regional Office
4004 Wesbrook Mall
Vancouver, BC, Canada V6T 2A3

Customer Service

isotopeorders@bwxt.com
North America: +1.800.267.6211
International: +1.613.963.2621
General Emergency: +1.613.963.2300