

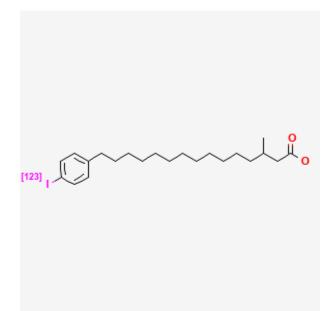
U.S. National Library of Medicine National Center for Biotechnology Information **NLM Citation:** Drugs and Lactation Database (LactMed®) [Internet]. Bethesda (MD): National Institute of Child Health and Human Development; 2006-. Iodofiltic Acid I 123. [Updated 2023 Oct 15]. **Bookshelf URL:** https://www.ncbi.nlm.nih.gov/books/



## Iodofiltic Acid I 123

Revised: October 15, 2023.

CASRN: 123748-56-1



## **Drug Levels and Effects**

## Summary of Use during Lactation

Information in this record refers to the use of iodofiltic acid I 123 (beta-methyl-15-(4-iodophenyl) pentadecanoic acid; I 123 BMIPP) as a diagnostic agent. The International Commission on Radiological Protection states that breastfeeding should be interrupted for more than 3 weeks following diagnostic use of I 123 BMIPP because of possible contamination with other iodine isotopes.[1] Because this contamination does not occur with modern production methods, discontinuation of nursing is not necessary, especially if a thyroid blocking agent is given to the mother.[2,3]

Mothers concerned about the level of radioactivity in their milk could ask to have it tested at a nuclear medicine facility at their hospital. When the radioactivity is at a safe level, she may resume breastfeeding. A method for

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measuring milk radioactivity and determining the time when a mother can safely resume breastfeeding has been published.[4]

#### **Drug Levels**

I 123 is a gamma emitter with a principal photon energy of 159 keV and a physical half-life of 13.1 hours.[2] Iodide is actively secreted into breastmilk and actively taken up by the mother's and infant's thyroid glands.

#### **Effects in Breastfed Infants**

Relevant published information was not found as of the revision date.

## **Effects on Lactation and Breastmilk**

Relevant published information was not found as of the revision date.

#### References

- 1. Mattsson S, Johansson L, Leide Svegborn S, et al. Radiation dose to patients from radiopharmaceuticals: A compendium of current information related to frequently used substances. ICRP Publication 128. Annex D. Recommendations on breast-feeding interruptions. Ann ICRP 2015;44 (2 Suppl ):319-21.
- Dilsizian V, Metter D, Palestro C, Zanzonico P. Advisory Committee on Medical Uses of Isotopes (ACMUI) Sub-Committee on Nursing Mother Guidelines for the Medical Administration of Radioactive Material. Final report submitted: January 31, 2019. 2019. Available at: https://www.nrc.gov/docs/ML1903/ ML19038A498.pdf
- 3. Mattsson S, Leide-Svegborn S, Andersson M. X-ray and molecular imaging during pregnancy and breastfeeding-when should we be worried? Radiat Prot Dosimetry 2021;195:339-48. PubMed PMID: 33855370.
- 4. Stabin MG, Breitz HB. Breast milk excretion of radiopharmaceuticals: Mechanisms, findings, and radiation dosimetry. J Nucl Med 2000;41:863-73. PubMed PMID: 10809203.

# **Substance Identification**

#### **Substance Name**

Iodofiltic Acid I 123

## **CAS Registry Number**

123748-56-1

## **Drug Class**

Breast Feeding Lactation Milk, Human Radiopharmaceuticals Iodine Radioisotopes Diagnostic Agents