



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

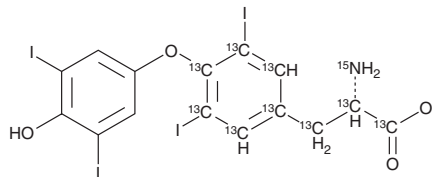
# PRODUCT INFORMATION



## L-Thyroxine-<sup>13</sup>C<sub>9</sub>,<sup>15</sup>N

Item No. 25039

**CAS Registry No.:** 1431868-11-9  
**Formal Name:** O-(4-hydroxy-3,5-diiodophenyl)-3,5-diiodo-L-tyrosine-carboxy,α,β,1,2,3,4,5,6-<sup>13</sup>C<sub>9</sub>,<sup>15</sup>N  
**Synonyms:** L-T4-<sup>13</sup>C<sub>9</sub>,<sup>15</sup>N, , Levothyroxine-<sup>13</sup>C<sub>9</sub>,<sup>15</sup>N  
**MF:** C<sub>6</sub>[<sup>13</sup>C]<sub>9</sub>H<sub>11</sub>I<sub>4</sub>[<sup>15</sup>N]O<sub>4</sub>  
**FW:** 786.8  
**Purity:** ≥98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

L-Thyroxine-<sup>13</sup>C<sub>9</sub>,<sup>15</sup>N is supplied as a solid. A stock solution may be made by dissolving the L-thyroxine-<sup>13</sup>C<sub>9</sub>,<sup>15</sup>N in the solvent of choice. L-Thyroxine-<sup>13</sup>C<sub>9</sub>,<sup>15</sup>N is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of L-thyroxine-<sup>13</sup>C<sub>9</sub>,<sup>15</sup>N in these solvents is approximately 2.5 and 0.14 mg/ml, respectively.

L-Thyroxine-<sup>13</sup>C<sub>9</sub>,<sup>15</sup>N is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, L-thyroxine-<sup>13</sup>C<sub>9</sub>,<sup>15</sup>N should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. L-Thyroxine-<sup>13</sup>C<sub>9</sub>,<sup>15</sup>N has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

L-Thyroxine-<sup>13</sup>C<sub>9</sub>,<sup>15</sup>N is intended for use as an internal standard for the quantification of L-thyroxine (Item No. 14116) by GC- or LC-MS. L-Thyroxine is a synthetic form of the thyroid hormone thyroxine.<sup>1-3</sup> *In vivo*, L-thyroxine (0.9 and 2.7 μg) inhibits synthesis and release of thyrotropin induced by thyrotropin-releasing hormone (Item No. 22917) from the anterior pituitary in mice.<sup>1</sup> It also reverses decreases in levels of circulating thymic serum factor (FTS) and the number of T rosette-forming cells in an old age-induced mouse model of hypothyroidism.<sup>2,3</sup> Formulations containing L-thyroxine have been used in the treatment of hypothyroidism.

### References

1. Bowers, C.Y., Schally, A.V., Reynolds, G.A., *et al.* Interactions of L-thyroxine or L-triiodothyronine and thyrotropin-releasing factor on the release and synthesis of thyrotropin from the anterior pituitary gland of mice. *Endocrinology* **81**(4), 741-747 (1967).
2. Fabris, N., Muzzioli, M., and Mocchegiani, E. Recovery of age-dependent immunological deterioration in Balb/c mice by short-term treatment with L-thyroxine. *Mech. Ageing Dev.* **18**(4), 327-338 (1982).
3. Fabris, N. and Mocchegiani, E. Endocrine control of thymic serum factor production in young-adult and old mice. *Cell Immunol.* **91**(2), 325-335 (1985).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/04/2018

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM