

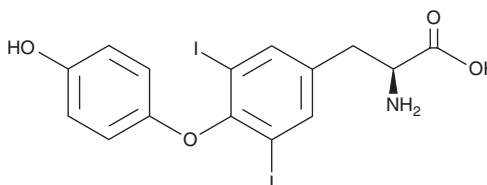
# PRODUCT INFORMATION



## 3,5-Diiodo-L-thyronine

Item No. 35212

**CAS Registry No.:** 1041-01-6  
**Formal Name:** O-(4-hydroxyphenyl)-3,5-diiodo-L-tyrosine  
**Synonyms:** 3,5-Diiodothyronine, NSC 90469, 3,5-T2  
**MF:** C<sub>15</sub>H<sub>13</sub>I<sub>2</sub>NO<sub>4</sub>  
**FW:** 525.1  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 229 nm  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

3,5-Diiodo-L-thyronine (3,5-T<sub>2</sub>) is supplied as a solid. A stock solution may be made by dissolving the 3,5-T<sub>2</sub> in the solvent of choice, which should be purged with an inert gas. 3,5-T<sub>2</sub> is soluble in the organic solvent dimethyl formamide at a concentration of approximately 1 mg/ml.

### Description

3,5-T<sub>2</sub> is a thyroid hormone metabolite.<sup>1</sup> It binds to thyroid hormone receptor α<sub>1</sub> (TRα<sub>1</sub>), TRβ<sub>1</sub>, and TRβ<sub>2</sub> (EC<sub>50</sub>s = 0.8, 0.79, and 0.1 μM, respectively, in cell-free assays).<sup>2</sup> 3,5-T<sub>2</sub> (1 pM) stimulates oxygen consumption in perfused livers isolated from rats with hypothyroidism induced by sodium iodide.<sup>3</sup> It reduces subcutaneous and epididymal fat mass, as well as decreases serum leptin and cholesterol levels, without affecting body weight in high-fat diet-induced obese mice when administered at a dose of 2.5 μg/g per day.<sup>1</sup>

### References

- Jonas, W., Lietzow, J., Wohlgemuth, F., et al. 3,5-Diiodo-L-thyronine (3,5-T<sub>2</sub>) exerts thyromimetic effects on hypothalamus-pituitary-thyroid axis, body composition, and energy metabolism in male diet-induced obese mice. *Endocrinology* **156**(1), 389-399 (2015).
- Ball, S.G., Sokolov, J., and Chin, W.W. 3,5-Diiodo-L-thyronine (T<sub>2</sub>) has selective thyromimetic effects *in vivo* and *in vitro*. *J. Mol. Endocrinol.* **19**(2), 137-147 (1997).
- Horst, C., Rokos, H., and Seitz, H.J. Rapid stimulation of hepatic oxygen consumption by 3,5-di-iodo-L-thyronine. *Biochem. J.* **261**(3), 945-950 (1989).

#### 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

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