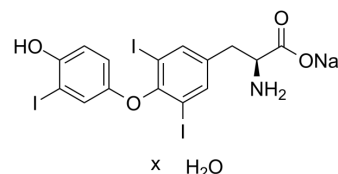


Liothyronine sodium hydrate

Cat. No.:	HY-A0070B
CAS No.:	345957-19-9
Molecular Formula:	C ₁₅ H ₁₂ I ₃ NO ₄ ·xH ₂ O·Na
Target:	Endogenous Metabolite; Thyroid Hormone Receptor
Pathway:	Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Liothyronine sodium hydrate is an active form of thyroid hormone. Liothyronine sodium hydrate is a potent thyroid hormone receptors TR α and TR β agonist with K _s of 2.33 nM for hTR α and hTR β , respectively ^{[1][2][3]} .
IC₅₀ & Target	Human Endogenous Metabolite
In Vitro	Liothyronine (T ₃ , 100 nM) sodium hydrate stimulates the proliferation of hepatocarcinoma cells in which TR β 1 is overexpressed ^[1] . Liothyronine sodium hydrate binds to human β 1 thyroid hormone receptor (hTR β 1), and changes its conformation. Liothyronine sodium hydrate promotes growth, induces differentiation and regulates metabolic effects ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Cell Metab. 2023 Sep 7;S1550-4131(23)00304-2.
- Nat Commun. 2023 Jun 2;14(1):3208.
- JCI Insight. 2021 Jun 22;6(12):142838.
- J Med Chem. 2022 Jan 21.
- Food Science and Human Wellness. 2023 Nov;12(6);2061-2072.

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REFERENCES

- [1]. Lin KH, et al. Stimulation of proliferation by 3,3',5-triiodo-L-thyronine in poorly differentiated human hepatocarcinoma cells overexpressing beta 1 thyroid hormone receptor. Cancer Lett. 1994 Oct 14;85(2):189-94.
- [2]. Bhat MK, et al. Conformational changes of human beta 1 thyroid hormone receptor induced by binding of 3,3',5-triiodo-L-thyronine. Biochem Biophys Res Commun. 1993 Aug 31;195(1):385-92.
- [3]. Hiroaki Shiohara, et al. Discovery of novel indane derivatives as liver-selective thyroid hormone receptor β (TR β) agonists for the treatment of dyslipidemia. Bioorg Med

Caution: Product has not been fully validated for medical applications. For research use only.

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