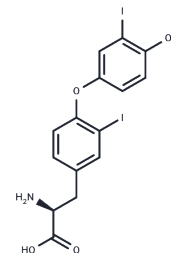


3,3'-Diiodo-L-thyronine

Chemical Properties

CAS No. :	4604-41-5
Formula:	C ₁₅ H ₁₃ I ₂ NO ₄
Molecular Weight:	525.08
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	3,3'-Diiodo-L-thyronine (3,3'-T ₂) is an endogenous thyroid hormone metabolite capable of enhancing mitochondrial COX activity in rat hepatocytes.
Targets(IC ₅₀)	Endogenous Metabolite,COX
In vitro	The addition of 3,3'-diiodo-L-thyronine to the liver homogenate of hypothyroid rats significantly increases the activity of cyclooxygenase (COX). 3,3'-Diiodo-L-thyronine achieves its maximum effect when its concentration reaches approximately 10 ⁻⁶ M and after 30 minutes of incubation. [2]

Solubility Information

Solubility	DMSO: 80 mg/mL (152.36 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 3.3 mg/mL (6.28 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9045 mL	9.5224 mL	19.0447 mL
5 mM	0.3809 mL	1.9045 mL	3.8089 mL
10 mM	0.1904 mL	0.9522 mL	1.9045 mL
50 mM	0.0381 mL	0.1904 mL	0.3809 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Lorenzini L, et al. Assay of Endogenous 3,5-diiodo-L-thyronine (3,5-T2) and 3,3'-diiodo-L-thyronine (3,3'-T2) in Human Serum: A Feasibility Study. *Front Endocrinol (Lausanne)*. 2019 Feb 19;10:88.

Lanni A, et al. Rapid stimulation in vitro of rat liver cytochrome oxidase activity by 3,5-diiodo-L-thyronine and by 3,3'-diiodo-L-thyronine. *Mol Cell Endocrinol*. 1994 Feb;99(1):89-94.

Chen X, et al. Simultaneous quantification of T4, T3, rT3, 3,5-T2 and 3,3'-T2 in larval zebrafish (*Danio rerio*) as a model to study exposure to polychlorinated biphenyls. *Biomed Chromatogr*. 2018 Jun;32(6):e4185.

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