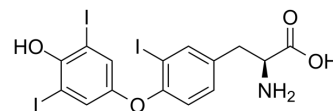


Reverse T3

Cat. No.:	HY-W010696		
CAS No.:	5817-39-0		
Molecular Formula:	C ₁₅ H ₁₂ I ₃ NO ₄		
Molecular Weight:	650.97		
Target:	Thyroid Hormone Receptor		
Pathway:	Vitamin D Related/Nuclear Receptor		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 5 mg/mL (7.68 mM; Need ultrasonic)
 H₂O : 3.57 mg/mL (5.48 mM; ultrasonic and warming and heat to 60°C)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	1.5362 mL	7.6808 mL	15.3617 mL
5 mM	0.3072 mL	1.5362 mL	3.0723 mL
10 mM	---	---	---

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Reverse T3 is a thyroid hormone that can be generated by deiodination of the prohormone thyroxine^[1]. Reverse T3 inhibits the increase of sodium current generated by other thyroid hormone analogs in neonatal rat myocytes^[2].

In Vitro

Reverse T3 (0.1 μM, 72 h) promotes cell proliferation in islet β-cell lines (rRINm5F and hCM)^[3].
 Reverse T3 (0.1 μM) inhibits the apoptotic process in rRINm5F and hCM cells induced by Streptozocin (HY-13753) (15 mM for 2 h), S-Nitroso-N-Acetylpenicillamine (SNAP) (200 μM for 24 h), and H₂O₂ (50 μM, 30 min)^[3].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Reverse T3 (0-10 mg/kg, diet for 60 days) increases growth rate (SGR) and better food conversion ratio (FCR) in carp in comparison to the control group^[4].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Environ Sci Technol. 2022 May 3;56(9):5673-5683.
- Int J Endocrinol. 2023 Feb 14.

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REFERENCES

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- [2]. Bronson Kumar Khangembam, et al. Effect of cortisol and triiodothyronine bath treatments on the digestive enzyme profile and growth of atla catla larvae during ontogenic development, Aquaculture Research.13054, 48, 5, (2173-2185), (2016).
- [3]. Nicod P, et al. Radioimmunoassay for 3,3',5'-triiodo-L-thyronine in unextracted serum: method and clinical results. J Clin Endocrinol Metab. 1976 May;42(5):823-9.
- [4]. Rebolledo RA, et al. Anti-Apoptotic Effects of 3,3',5-Triiodo-L-Thyronine in the Liver of Brain-Dead Rats. PLoS One. 2015 Oct 5;10(10):e0138749.
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Caution: Product has not been fully validated for medical applications. For research use only.

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