Thyroid hormone receptor antagonist (1-850)

Cat. No.: HY-127024

CAS No.: 251310-57-3

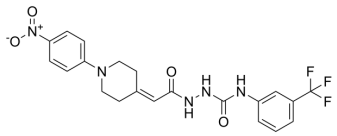
Molecular Formula: $C_{21}H_{20}F_3N_5O_4$

Molecular Weight: 463.41

Target: Thyroid Hormone Receptor

Pathway: Vitamin D Related/Nuclear Receptor

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Thyroid hormone receptor antagonist (1-850) is a competitive, selective and high-affinity thyroid hormone receptor (TR) antagonist with an IC_{50} of 1.5 μM for antagonizing the effect of T3 on TR. Thyroid hormone receptor antagonist (1-850) blocks T3-mediated interaction of TRα and TRβ with nuclear receptor coactivator. Thyroid hormone receptor antagonist (1-850) has no effect on the activity of RARα[1][2][3].
In Vitro	Thyroid hormone receptor antagonist (1-850) (10 μM; for 7 days) abolishes the increase in the expression of nestin mRNA induced by Retinoic Acid (RA; HY-14649; 1 μM) [2]. Thyroid hormone receptor antagonist (1-850) (0.1-20 μM; 24 h) effectively blocks IGF1 mRNA expression while increases D2 mRNA expression in Organotypic tilapia liver cultures[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Matthieu Schapira, et al. Discovery of diverse thyroid hormone receptor antagonists by high-throughput docking. Proc Natl Acad Sci U S A. 2003 Jun 10;100(12):7354-9.

[2]. Mercedes Fernández, et al. Thyroid Hormone Signaling in Embryonic Stem Cells: Crosstalk with the Retinoic Acid Pathway. Int J Mol Sci. 2020 Nov 25;21(23):8945.

[3]. Pamela Navarrete-Ramírez, et al. 3,5-di-iodothyronine stimulates tilapia growth through an alternate isoform of thyroid hormone receptor β1. J Mol Endocrinol. 2014 Feb 1;52(1):1-9.

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