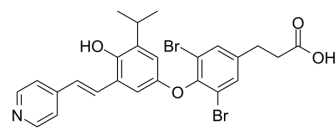


TR antagonist 1

Cat. No.:	HY-111443
CAS No.:	500794-88-7
Molecular Formula:	C ₂₅ H ₂₃ Br ₂ NO ₄
Molecular Weight:	561.26
Target:	Thyroid Hormone Receptor
Pathway:	Vitamin D Related/Nuclear Receptor
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 83.3 mg/mL (148.42 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1 mg	5 mg	10 mg
	1 mM		1.7817 mL	8.9085 mL	17.8171 mL
	5 mM		0.3563 mL	1.7817 mL	3.5634 mL
	10 mM		0.1782 mL	0.8909 mL	1.7817 mL

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

BIOLOGICAL ACTIVITY

Description	TR antagonist 1 is a high-affinity thyroid hormone receptor (TR) antagonist with IC ₅₀ s of 36 and 22 nM for TRα and TRβ, respectively.
IC₅₀ & Target	IC ₅₀ : 36 nM (Thyroid hormone α), 22 nM (Thyroid hormone α) ^[1]
In Vitro	TR antagonist 1 displays high affinity for both thyroid hormone TRα and TRβ (IC ₅₀ =36 and 22 nM, respectively). TR antagonist 1 acts as a full antagonist in the TRAFR cell assay and the IC ₅₀ 32 nM for both TRAFα1 and TRAFβ1 ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	TR antagonist 1 treatment lowers heart rate and shows a possible trend toward an increase of low-density lipoprotein cholesterol (LDL-C) in the cholesterol fed rat model ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

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- Environ Sci Technol. 2022 Sep 9.
 - Environ Sci Technol. 2022 May 3;56(9):5673-5683.
 - Sci Total Environ. 2023 Apr 21;163590.

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REFERENCES

[1]. Koehler K, et al. Thyroid receptor ligands. 6. A high affinity "direct antagonist" selective for the thyroid hormone receptor. J Med Chem. 2006 Nov 16;49(23):6635-7.

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

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