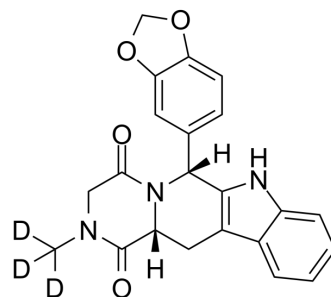


Tadalafil-d₃

Cat. No.:	HY-90009S		
CAS No.:	960226-55-5		
Molecular Formula:	C ₂₂ H ₁₆ D ₃ N ₃ O ₄		
Molecular Weight:	392.42		
Target:	Phosphodiesterase (PDE)		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (254.83 mM; Need ultrasonic)
 DMSO : 50 mg/mL (127.41 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	2.5483 mL	12.7414 mL	25.4829 mL
5 mM	0.5097 mL	2.5483 mL	5.0966 mL
10 mM	0.2548 mL	1.2741 mL	2.5483 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.5 mg/mL (6.37 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Tadalafil-d₃ is the deuterium labeled Nortadalafil. Nortadalafil is demethyl Tadalafil, which is a PDE5 inhibitor, currently marketed in pill form for treating erectile dysfunction (ED) under the name Cialis; and under the name Adcirca for the treatment of pulmonary arterial hypertension.

In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs^[1].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

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

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