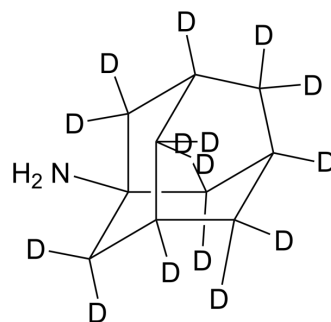


Amantadine-d₁₅

Cat. No.:	HY-B0402S		
CAS No.:	33830-10-3		
Molecular Formula:	C ₁₀ H ₂ D ₁₅ N		
Molecular Weight:	166.34		
Target:	Influenza Virus; Orthopoxvirus; SARS-CoV; Apoptosis		
Pathway:	Anti-infection; Apoptosis		
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 : 10 mg/mL (60.12 mM; ultrasonic and adjust pH to 2 with 1M HCl)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	6.0118 mL	30.0589 mL	60.1178 mL
	5 mM	1.2024 mL	6.0118 mL	12.0236 mL
	10 mM	0.6012 mL	3.0059 mL	6.0118 mL

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

BIOLOGICAL ACTIVITY

Description

Amantadine-d₁₅ is the deuterium labeled Amantadine. Amantadine (1-Adamantanamine) is an antiviral agent with activity against influenza A viruses. Amantadine blocks the proton flow through the M2 ion channel (M2 proton channel of influenza A) and thus prevents the release of viral RNA into the cytoplasm of the infected cells. Amantadine is an antiparkinsonian agent^{[1][2]}.

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

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.

[2]. Suzuki H, et al. Emergence of amantadine-resistant influenza A viruses: epidemiological study. J Infect Chemother. 2003;9(3):195-200.

[3]. Hubsher G, et al. Amantadine: the journey from fighting flu to treating Parkinson disease. Neurology. 2012;78(14):1096-1099.

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

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