

Product Data Sheet

Product Name: 1-Aminoadamantane-d15

Cat. No.: GF44378

Chemical Properties

Cas. No. 33830-10-3

Formula C₁₀H₃D₁₆CIN

M.Wt 202.8

Solubility DMSO : 10 mg/mL (60.12 mM;
ultrasonic and adjust pH to 2 with 1M
HCl)

Storage Store at RT

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

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].

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

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gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs^[1].

[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.

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