

Product Data Sheet

Product Name: Memantine-d6 (hydrochloride)

Cat. No.: GC40078

Chemical Properties

Cas. No. 1189713-18-5

SMILES N[C@]12C[C@](C[C@@](C([2H])([2H])[2H])(C2)C3)(C([2H])([2H])[2H])C[C@@H]3C1.Cl

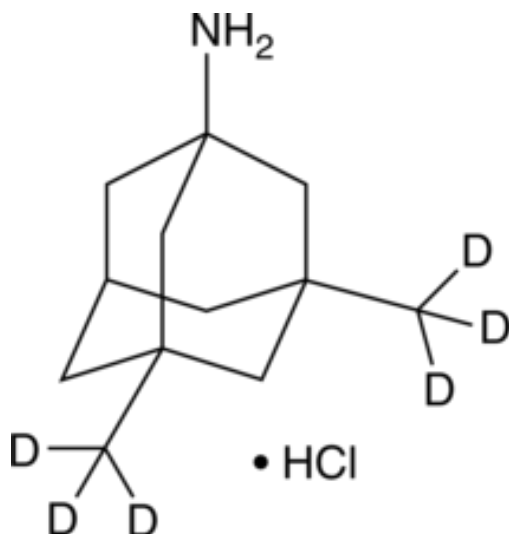
Formula $C_{12}H_{15}D_6N \cdot HCl$ M.Wt 221.8

Solubility DMSO: Soluble, Methanol: Soluble Storage Store at $-20^{\circ}C$

General tips For obtaining a higher solubility, please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ 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

Memantine-d6 is intended for use as an internal standard for the quantification of memantine by GC- or LC-MS. Memantine is an NMDA receptor antagonist that blocks NMDA-induced currents in rat

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

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retinal ganglion cells by 90% when used at a concentration of 12 μ M. It reverses inhibition of dephosphorylation of the synthetic tau phosphopeptide p17 (tau194-207) induced by the endogenous inhibitor of protein phosphatase 2A (PP2A) I1PP2A in vitro. In vivo, memantine (2 mg/kg) restores PP2A activity, decreases GSK-3 β and amyloid- β (A β) levels in the hippocampus, cerebral cortex, and ventricular areas, and attenuates spatial learning and memory deficits in the AAV1-I1PP2A rat model of Alzheimer's disease. Memantine (20 mg/kg) reduces responding on the ethanol-associated lever in a cue-induced ethanol-seeking test in rats. It also decreases secretion of matrix metalloproteinase-9 (MMP-9), degradation of collagen IV, the size of cerebral ischemia-induced brain infarcts, and neuronal cell death in a mouse model of focal cerebral ischemia.

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