

Product Data Sheet

Product Name: MPP⁺-d₃(iodide)

Cat. No.: GC66401

Chemical Properties

Cas. No. 207556-07-8

Formula C₁₂H₉D₃I⁺ M.Wt 300.15

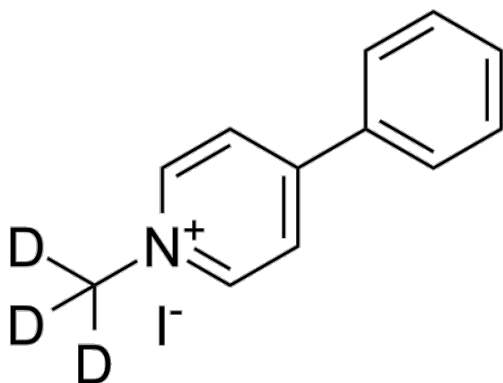
Solubility DMSO : 100 mg/mL (333.17 mM; Need ultrasonic); DMSO : 100 mg/mL (333.17 mM; Need ultrasonic)

Storage Store at -20°C, protect from light

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

MPP⁺-d₃(iodide) is deuterium labeled MPP⁺ (iodide). MPP⁺ iodide, a toxic metabolite of the neurotoxin MPTP, causes symptom of Parkinson's disease in animal models by selectively destroying dopaminergic neurons in substantia nigra. MPP⁺ iodide is taken up by the dopamine

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

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transporter into dopaminergic neurons where it exerts its neurotoxic action on mitochondria by affecting complex I of the respiratory chain. MPP⁺ iodide is also a high affinity substrate for the serotonin transporter (SERT)^{[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 gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs^[1].

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