

Product Data Sheet

Product Name: Ethosuximide-d5

Cat. No.: GC47315

Chemical Properties

Cas. No. 1989660-59-4

SMILES O=C1CC(C([2H])([2H])C([2H])([2H])[2H])(C)C(N1)=O

Formula C7H6D5NO2

M.Wt 146.2

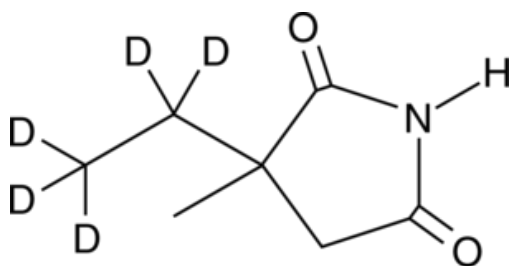
Solubility Methanol: soluble

Storage Store at -20°C

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

Ethosuximide-d₅ is intended for use as an internal standard for the quantification of ethosuximide by GC- or LC-MS. Ethosuximide is an anticonvulsant.^{1,2,3,4,5} It increases glucose, fructose-1,6-bisphosphate, and pyruvate levels in rat brain when administered at a dose of 200 mg/kg.¹ Ethosuximide (400 mg/kg) reduces the severity of audiogenic seizures in a rat model of barbiturate withdrawal-induced convulsions.² It also inhibits tonic hindlimb extension induced by pentylenetetrazole or brainstem stimulation (ED₅₀s = 35 and 70 mg/kg, respectively), as well as leptazol-induced clonic seizures (ED₅₀ = 230 mg/kg), in rats.^{3,4} Ethosuximide reduces resting tremor by 60% in a macaque model of Parkinson's disease induced by MPTP when administered at a dose of 150 mg/animal for 5 days.⁵ Formulations containing ethosuximide have been used in the treatment of petit mal seizures.

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

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1.Nahorski, S.R.Biochemical effects of the anticonvulsants trimethadione, ethosuximide and chlordiazepoxide in rat brainJ. Neurochem.19(8)1937-1946(1972) 2.Norton, P.R.The effects of drugs on barbiturate withdrawal convulsions in the ratJ. Pharm. Pharmacol.22(10)763-766(1970)
3.Consroe, P.F., and Wolkin, A.L.Anticonvulsant interaction of cannabidiol and ethosuximide in ratsJ. Pharm. Pharmacol.29(8)500-501(1977) 4.Chiu, P., and Burnham, W.M.The effect of anticonvulsant drugs on convulsions triggered by direct stimulation of the brainstemNeuropharmacology21(4)355-359(1982) 5.Gomez-Mancilla, B., Latulippe, J.F., Boucher, R., et al.Effect of ethosuximide on rest tremor in the MPTP monkey modelMov. Disord.7(2)137-141(1992)

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