

Product Data Sheet

Product Name: Tetrabenazine-d7

Cat. No.: GC48149

Chemical Properties

Cas. No. 2701977-99-1

SMILES O=C1[C@@H](CC(C([2H])([2H])[2H])([2H])C([2H])([2H])[2H])CN2[C@@](C(C=C(OC)C(OC)=C3)=C3CC2)([H])C1

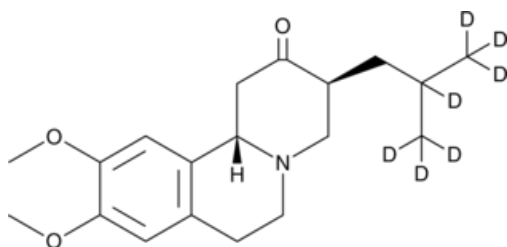
Formula C₁₉H₂₀D₇NO₃ M.Wt 324.5

Solubility Chloroform: soluble Storage Store at -20°C

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

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

Structure



Background

Tetrabenazine-d7 is intended for use as an internal standard for the quantification of tetrabenazine by GC- or LC-MS. Tetrabenazine is an inhibitor of vesicular monoamine transporter 2 (VMAT2) that is selective over VMAT1 (K_i s = 97 and >20,000 nM, respectively, in a serotonin uptake assay).¹ It dose-dependently reduces levels of the monoamines norepinephrine , dopamine , and serotonin in rat brain and has been used to induce depressive-like behavior in animal models.^{2,3} Tetrabenazine (5 mg/kg) improves performance in balance beam and rotarod tests and prevents decreases in the number of striatal medium spiny neurons (MSNs) in a YAC128 transgenic mouse model of Huntington's disease.⁴ Formulations containing tetrabenazine have been used in the treatment of chorea associated with Huntington's disease.

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

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1.Erickson, J.D., SchÄfer, M.K.H., Bonner, T.I., et al.Distinct pharmacological properties and distribution in neurons and endocrine cells of two isoforms of the human vesicular monoamine transporterProc. Natl. Acad. Sci. U.S.A.93(10)5166-5171(1996) 2.Pettibone, D.J., Totaro, J.A., and Pflueger, A.B.Tetrabenazine-induced depletion of brain monoamines: Characterization and interaction with selected antidepressantsEur. J. Pharmacol.102(3-4)425-430(1984) 3.Preskorn, S.H., Kent, T.A., Glotzbach, R.K., et al.Cerebromicrocirculatory defects in animal model of depressionPsychopharmacology (Berl).84(2)196-199(1984) 4.Wang, H., Chen, X., Li, Y., et al.Tetrabenazine is neuroprotective in Huntington's disease miceMol. Neurodegener.5:18(2010)

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