

(+)-Tetrabenazine

Chemical Properties

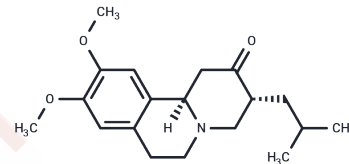
CAS No. : 1026016-83-0

Formula: C₁₉H₂₇N₃O₃

Molecular Weight: 317.42

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	(+)-Tetrabenazine ((3R,11bR)-Tetrabenazine) is a reversible vesicular monoamine transporter 2 (VMAT-2) inhibitor, inhibits transport by VMAT2 with 10-fold greater potency than transport by VMAT1.
Targets(IC50)	Monoamine Transporter

Solubility Information

Solubility	DMSO: 15 mg/mL (47.26 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (3.15 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1504 mL	15.752 mL	31.504 mL
5 mM	0.6301 mL	3.1504 mL	6.3008 mL
10 mM	0.315 mL	1.5752 mL	3.1504 mL
50 mM	0.063 mL	0.315 mL	0.6301 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Podurgiel SJ et al. The MAO-B inhibitor deprenyl reduces the oral tremor and the dopamine depletion induced by the VMAT-2 inhibitor tetrabenazine. Behav Brain Res. 2016 Feb 1;298(Pt B):188-91.

Peter D et al. Chimeric vesicular monoamine transporters identify structural domains that influence substrate affinity and sensitivity to tetrabenazine. J Biol Chem. 1996 Feb 9;271(6):2979-86.

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