

L-DOPA methyl ester (hydrochloride)

Chemical Properties

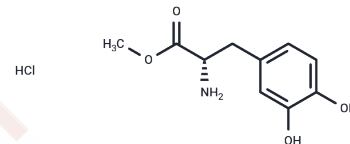
CAS No. : 1421-65-4

Formula: C₁₀H₁₄ClNO₄

Molecular Weight: 247.675

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

Actual storage temperature shall be subject to the COA.



Biological Description

Description	L-DOPA methyl ester (LDME) is an agonist of dopamine D1 receptor.
Targets(IC50)	Dopamine Receptor
In vitro	L-DOPA methyl ester (LDME) might ameliorate the functional cytoarchitecture in visual cortex area 17 through mechanisms that elevate DA content and increase endogenous c-fos expression, as well as inhibit neuronal lesion in visual cortex tissue

Solubility Information

Solubility	DMSO: 27.5 mg/mL (111.03 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: 2 mg/mL (8.08 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	4.0375 mL	20.1873 mL	40.3747 mL
5 mM	0.8075 mL	4.0375 mL	8.0749 mL
10 mM	0.4037 mL	2.0187 mL	4.0375 mL
50 mM	0.0807 mL	0.4037 mL	0.8075 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

Li R , Liang T , Chen Z , et al. l-Dopa methyl ester attenuates amblyopia-induced neuronal injury in visual cortex of amblyopic cat[J]. *Gene*, 2013, 527(1):115-122.

Goshima Y , Nakamura S , Misu Y . L-DOPA methyl ester antagonizes competitively L-DOPA-induced facilitation of noradrenaline release from rat hypothalamic slices.[J]. *The Japanese Journal of Pharmacology*, 1990, 52(1):174-177.

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