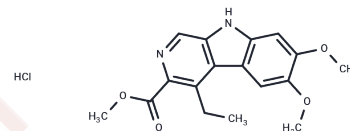


DMCM hydrochloride

Chemical Properties

CAS No. : 1215833-62-7
 Formula: C₁₇H₁₉ClN₂O₄
 Molecular Weight: 350.8
 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	DMCM hydrochloride is a non-selective fully inverse agonist of benzodiazepine. DMCM showed significant differences in human recombinant GABAA $\alpha\beta\gamma_2$ receptor subtypes. For α_1 , α_2 , α_3 , and α_5 receptors, their K_{is} were 10 nM, 13 nM, 7.5 nM, 2.2 nM, respectively.
Targets(IC ₅₀)	GABA Receptor
In vivo	DMCM exhibits potent convulsant, proconvulsant, and anxiogenic properties in vivo. At doses of 20-60 mg/kg (i.p.), DMCM induces modest anxiolytic-like effects in γ_2177 mice [2].

Solubility Information

Solubility	H ₂ O: 22.5 mg/mL (64.14 mM), Sonication is recommended. DMSO: 9 mg/mL (25.66 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 (2.85 mM), Sonication is recommended. 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.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8506 mL	14.2531 mL	28.5063 mL
5 mM	0.5701 mL	2.8506 mL	5.7013 mL
10 mM	0.2851 mL	1.4253 mL	2.8506 mL
50 mM	0.057 mL	0.2851 mL	0.5701 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

Chambers MS, et al. An orally bioavailable, functionally selective inverse agonist at the benzodiazepine site of GABAA alpha5 receptors with cognition enhancing properties. *J Med Chem.* 2004 Nov 18;47(24):5829-32.

Leppä E, et al. Agonistic effects of the beta-carboline DMCM revealed in GABA(A) receptor gamma 2 subunit F77I point-mutated mice. *Neuropharmacology.* 2005 Mar;48(4):469-78.

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