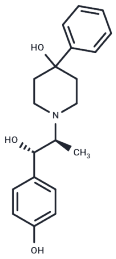
Data Sheet (Cat.No.TQ0233)

TargetMol

Traxoprodil

Chemical Properties



CAS No. : 134234-12-1

Formula: C20H25NO3

Molecular Weight: 327.42

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	Traxoprodil (CP101606) is a selective NMDA antagonist and protects hippocampal neurons (IC50: 10 nM).
Targets(IC50)	NMDAR,iGluR
In vivo	Traxoprodil exhibits potent activity by effectively blocking haloperidol-induced catalepsy at doses below 1 mg/kg and counteracting NMDA-induced c-fos induction in mice at a 1 mg/kg dosage [1]. Additionally, traxoprodil demonstrates antidepressant properties in the forced swim test at doses of 20 and 40 mg/kg without affecting locomotor activity in animals [2]. Furthermore, at a concentration of 20 nM administered intracerebroventricularly (i.c.v.), traxoprodil prolongs the onset of generalized tonic-clonic seizures triggered by PTZ (70 mg/kg; i.p.). At an oral dose of 60 mg/kg, it not only delays the initiation of clonic and generalized seizures but also reduces the total duration of seizures experienced [3].
Animal Research	The effect of traxoprodil and SPD on PTZ-induced seizures is investigated by injecting the Adult (90-100 days-old) male Wistar rats (250-300 g) with traxoprodil (0.2, 2 or 20 nM/site), SPD (0.02, 0.2 or 2 nM/site), or with vehicle (0.9% NaCl, 1 μL) 15 min before the administration of PTZ (35 or 70 mg/kg, i.p.) [3]. The Forced swim test is done on male Albino Swiss mice (25-30 g). Traxoprodil (5, 10, 20, 40 mg/kg), imipramine and saline are administered i.p. 60 min before the test. The antidepressant activity is measured [2].

Solubility Information

Solubility	H2O: < 0.1 mg/mL (insoluble), DMSO: 62.5 mg/mL (190.89 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 (6.11 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	3.0542 mL	15.2709 mL	30.5418 mL
5 mM	0.6108 mL	3.0542 mL	6.1084 mL
10 mM	0.3054 mL	1.5271 mL	3.0542 mL
50 mM	0.0611 mL	0.3054 mL	0.6108 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

Chenard BL, et al. (1S,2S)-1-(4-hydroxyphenyl)-2-(4-hydroxy-4-phenylpiperidino)-1-propanol: a potent new neuroprotectant which blocks N-methyl-D-aspartate responses. J Med Chem. 1995 Aug 4;38(16):3138-45.
Poleszak E, et al. Traxoprodil, a selective antagonist of the NR2B subunit of the NMDA receptor, potentiates the antidepressant-like effects of certain antidepressant drugs in the forced swim test in mice. Metab Brain Dis. 2016 Aug;31(4):803-14.
Naspolini AP, et al. Traxoprodil decreases pentylenetetrazol-induced seizures. Epilepsy Res. 2012 Jun;100(1-2):12-9.