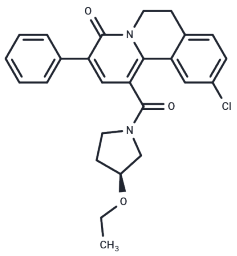
Data Sheet (Cat.No.T27838)

TargetMol

Lirequinil

Chemical Properties



CAS No. : 143943-73-1

Formula: C26H25ClN2O3

Molecular Weight: 448.94

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	Lirequinil (Ro 41-3696) is a small molecule GABAA receptor agonist utilized in the study of neurological disorders.
Targets(IC50)	GABA Receptor
In vivo	In a double-blind, six-way crossover study of the effects on psychomotor performance and memory of single doses of Ro 41-3696 (Lirequinil) (1, 3, 5, and 10 mg), a novel non-benzodiazepine partial agonist at the benzodiazepine receptor, zolpidem (10 mg) and placebo were compared after night-time administration to 12 healthy young male subjects. Psychomotor performance tests (tracking and attention as part of a standardized task battery) were conducted just before and at 1.5 and 8 h after drug intake. The memory test consisted of the recall of a list of 15 words at 8 h after drug intake which had been learned at 1.5 h after intake. At 1.5 h after drug intake 10 mg zolpidem induced markedly larger psychomotor effects than any dose of Ro 41-3696. The effects of 5 and 10 mg Ro 41-3696 and zolpidem were significantly greater than those of placebo ($P < 0.05$). The following morning, 8 h after drug intake, the slight residual effects of 5 and 10 mg Ro 41-3696 were statistically significantly greater than placebo, whereas zolpidem effects did not differ from placebo. The results of the memory test showed that learning as well as recall was most clearly impaired by zolpidem. An influence of Ro 41-3696 on these variables was not observed for doses up to 5 mg. In conclusion, Ro 41-3696 at all doses tested induced fewer effects on psychomotor performance and memory than 10 mg zolpidem at 1.5 h after intake. However, the effects of Ro 41-3696 appeared to be of longer duration. [2]

Solubility Information

Solubility	DMSO: 50 mg/mL (111.37 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2275 mL	11.1373 mL	22.2747 mL
5 mM	0.4455 mL	2.2275 mL	4.4549 mL
10 mM	0.2227 mL	1.1137 mL	2.2275 mL
50 mM	0.0445 mL	0.2227 mL	0.4455 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

Dingemanse J, et al. Pharmacokinetics and pharmacodynamics of Ro 41-3696, a novel nonbenzodiazepine hypnotic. J Clin Pharmacol. 1995;35(8):821-829.
Dingemanse J, et al. Comparative pharmacodynamics of Ro 41-3696, a new hypnotic, and zolpidem after night-time administration to healthy subjects. Psychopharmacology (Berl). 1995;122(2):169-174.
Tsuboi M, et al. Changes in mouse hippocampal EEG characteristics after oral administration of Ro 41-3696, nitrazepam, or zopiclone alone and in combination with ethanol. Pharmacology. 1994;49(5):278-285.
Dingemanse J, et al. Multiple-dose tolerability, pharmacodynamics, and pharmacokinetics of the quinolizinone hypnotic Ro 41-3696 in elderly subjects. Clin Neuropharmacol. 2001;24(2):82-90.

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