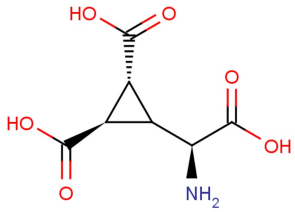
Data Sheet (Cat.No.T10978)

TargetMol
A DRUG SCREENING EXPERT

DCG-IV

Chemical Properties



CAS No.:	147782-19-2
Formula:	C7H9NO6
Molecular Weight:	203.15
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	DCG-IV is an effective agonist of class II mGluR. DCG-IV has anticonvulsant and neuroprotective effects. The EC50 of mGlu2R and mGlu3R are 0.35 and 0.09 μM, respectively. DCG-IV is also a competitive antagonist of Group I (IC50: mGlu1 / 5R = 389/630 μM) and III receptor (IC50: mGlu4 / 6/7 / 8R = 22.5 / 39.6 / 40.1 / 32 μM).
Targets(IC_{50})	Others: None
In vitro	DCG-IV is also a NMDA receptor agonist in rat cerebral cortex.
In vivo	DCG-IV (1-10 mg / kg; i.p.) inhibits hyperactivity caused by phencyclidine (PCP).

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.922 mL	24.612 mL	49.225 mL
5 mM	0.984 mL	4.922 mL	9.845 mL
10 mM	0.492 mL	2.461 mL	4.922 mL
50 mM	0.098 mL	0.492 mL	0.984 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. 1. Brabet I, et al. Comparative effect of L-CCG-I, DCG-IV and gamma-carboxy-L-glutamate on all clonedmetabotropic glutamate receptor subtypes. Neuropharmacology. 1998 Aug;37(8):1043-51.
2. Bertrand HO, et al. Common and selective molecular determinants involved in metabotopic glutamate receptoragonist activity. J Med Chem. 2002 Jul 18;45(15):3171-83.
3. Uyama Y, et al. DCG-IV, a potent metabotropic glutamate receptor agonist, as an NMDA receptor agonist in the rat cortical slice. Brain Res. 1997 Mar 28;752(1-2):327-30.
4. 4. Tomita N, et al. The effects of DCG-IV and L-CCG-1 upon phencyclidine (PCP)-induced locomotion and behavioral changes in mice. Ann N Y Acad Sci. 2000 Sep;914:284-91.

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