N-(2-Chloro-6-methylphenyl)-N'-4-pyridinylurea

Cat. No.: HY-101708

CAS No.: 97627-24-2

Molecular Formula: $C_{13}H_{12}ClN_3O$

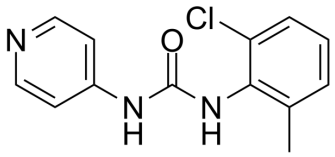
Molecular Weight: 261.71

Target: Others

Pathway: Others

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (477.63 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.8210 mL	19.1051 mL	38.2102 mL
	5 mM	0.7642 mL	3.8210 mL	7.6420 mL
	10 mM	0.3821 mL	1.9105 mL	3.8210 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (7.95 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (7.95 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (7.95 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

N-[(1R)-4-[(Aminoiminomethyl)amino]-1-[[[(1R)-1-(4-hydroxyphenyl)ethyl]amino]carbonyl]butyl]-α-phenylbenzeneacetamide is an anticonvulsant agent with potential for the treatment of generalized tonic-clonic and partial seizures.

In Vivo

Compound shows anticonvulsant activity at 30 mg/kg in the initial tests with no signs of ataxia until 300 mg/kg. The activity seen with 30 mg/kg 37 is still present 4 h postdose. Compound is effective against seizures induced by maximal electroshock but does not protect mice from clonic seizures produced by the convulsant pentylenetetrazol. The overall pharmacological

	profile suggests that Compound would be of therapeutic use in the treatment of generalized tonic-clonic and partial seizures. Compound is selected for clinical trials[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Animal Administration [1]	Mice: Five mice are tested at each of three doses (30,100, and 300 mg/kg) and three times (0.5, 2, and 4 h). The mice are subjected to electrical current delivered through ear clips for 0.2 s (90 mA, 1-ms monophasic pulses at 100 Hz). This current strength is approximately 4 times that required to produce seizures in 99% of mice and reliably produce seizures in 100% of control mice. Prevention of tonic hind limb extension is taken as an anticonvulsant effect. Behavioral side effects are measured in mice[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Pavia MR, et al. N-Phenyl-N'-pyridinylureas as Anticonvulsant Agents. J. Med. Chem. 1990,33, 854-861

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