LY231617

Cat. No.: HY-103253

CAS No.: 141545-89-3

Molecular Formula: $C_{17}H_{30}ClNO$

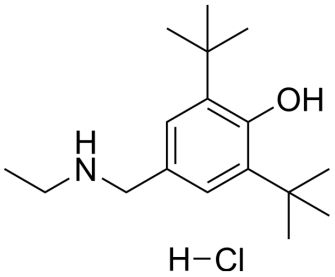
Molecular Weight: 299.88

Target: Others

Pathway: Others

Storage: -20°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (833.67 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.3347 mL	16.6733 mL	33.3467 mL
	5 mM	0.6669 mL	3.3347 mL	6.6693 mL
	10 mM	0.3335 mL	1.6673 mL	3.3347 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 (6.94 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (6.94 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (6.94 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

LY231617 is a potent and blood-brain barrier penetrable antioxidant. LY231617 is a neuroprotective agent in brain, it can be used for the research of nervous disease[1][2].

In Vitro

LY231617 (0.25, 1, 5, 10, and 25 μM; overnight) attenuates H_2O_2 toxicity to hippocampal cultures and shows the best effect at a concertration of 10 μM[1].

LY231617 (5 μM; overnight) attenuates 8-isoprostane production and glutathione depletion[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

LY231617 (50 mg/kg; p.o. 30 minutes before occlusion) reduces global ischemic neuronal injury in rats[2].

LY231617 (20 mg/kg; i.v. 30 minutes after occlusion) protects hippocampus and striatum from four-vessel occlusion[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Wistar rats four-vessel occlusion[2]
Dosage:	50 mg/kg
Administration:	Oral gavage; 50 mg/kg 30 minutes before occlusion
Result:	Significantly protected both the hippocampus and striatum from 30 minutes of four-vessel occlusion.

Animal Model:	Male Wistar rats four-vessel occlusion[2]
Dosage:	20 mg/kg
Administration:	Intravenous injection ; 20 mg/kg 30 minutes after occlusion
Result:	Significantly protected the hippocampus and the striatum when given 30 minutes after the onset of the ischemia at the time of reperfusion.

REFERENCES

[1]. Fuson KS, et al. Characterization of LY231617 protection against hydrogen peroxide toxicity. J Neurochem. 1999 Mar;72(3):1154-60.

[2]. Clemens JA, et al. The antioxidant LY231617 reduces global ischemic neuronal injury in rats. Stroke. 1993 May;24(5):716-22; discussion 722-3.

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