Ro60-0175

Cat. No.: HY-123838

CAS No.: 169675-08-5

Molecular Formula: $C_{11}H_{12}ClFN_2$

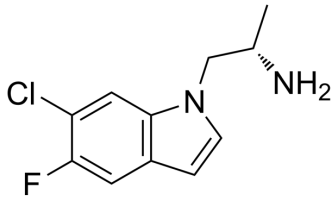
Molecular Weight: 226.68

Target: 5-HT Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: 4°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (551.44 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.4115 mL	22.0575 mL	44.1151 mL
	5 mM	0.8823 mL	4.4115 mL	8.8230 mL
	10 mM	0.4412 mL	2.2058 mL	4.4115 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 (9.18 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (9.18 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (9.18 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Ro60-0175 is a potent and selective agonist of 5-HT_{2C} receptor. Ro60-0175 reduces self-administration[1].

IC_{50} & Target

5-HT_{2C} Receptor

In Vivo

Ro60-0175 (1 mg/kg; s.c.) preserves the regularity of responding seen in control animals in drug-treated group, but drug-treated animals reach their break-points earlier[1].

Ro60-0175 (0.3, 1, and 3 mg/kg; s.c.) significantly reduces responding on the active lever in the reinstatement group[1].

Ro60-0175 (0.5 mg/kg SB242084; 1 mg/kg Ro60-0175; s.c.; i.p.) reduces responding compared to vehicle in the reinstatement group, and that this effect is prevented by pretreatment with SB242084. For responding on the inactive lever, there are no

significant main effects or interactions[1].

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

Animal Model:	Adult male Sprague-Dawley rats (280-320 g)[1]
Dosage:	1 mg/kg
Administration:	s.c.
Result:	Preserved the regularity of responding seen in control animals in drug-treated group, but drug-treated animals reached their break-points earlier.

Animal Model:	Adult male Sprague-Dawley rats (280-320 g)[1]
Dosage:	0.5 mg/kg (SB242084), 1 mg/kg (Ro60-0175)
Administration:	s.c. (Ro60-0175), i.p. (SB242084)
Result:	Reduced responding for cocaine and effect was reversed by SB242084.

Animal Model:	Adult male Sprague-Dawley rats (280-320 g)[1]
Dosage:	0.3, 1, and 3 mg/kg (Ro60-0175), 1 mg/kg (yohimbine)
Administration:	s.c. (Ro60-0175), i.p. (yohimbine)
Result:	Showed yohimbine treatment alone increased responding relative to vehicle injection, and the response was attenuated dose dependently by Ro60-0175.

Animal Model:	Adult male Sprague-Dawley rats (280-320 g)[1]
Dosage:	0.5 mg/kg (SB242084), 1 mg/kg (Ro60-0175), 1 mg/kg (yohimbine)
Administration:	s.c. (Ro60-0175), i.p. (yohimbine), i.p. (SB242084)
Result:	Ro60-0175 reduced responding and that this effect was prevented by SB242084 pretreatment.

REFERENCES

[1]. Fletcher PJ, et al. The 5-HT2C receptor agonist Ro60-0175 reduces cocaine self-administration and reinstatement induced by the stressor yohimbine, and contextual cues. Neuropsychopharmacology. 2008;33(6):1402-1412.

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