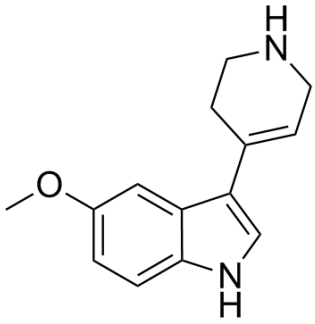
RU 24969

Cat. No.:	HY-16688
CAS No.:	66611-26-5
Molecular Formula:	$C_{14}H_{16}N_2O$
Molecular Weight:	228.29
Target:	5-HT Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
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 : ≥ 30 mg/mL (131.41 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.3804 mL	21.9020 mL	43.8039 mL
	5 mM	0.8761 mL	4.3804 mL	8.7608 mL
	10 mM	0.4380 mL	2.1902 mL	4.3804 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: ≥ 2.5 mg/mL (10.95 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (10.95 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

RU 24969 is a preferential 5-HT_{1B} agonist, with a K_i of 0.38 nM, but also displays appreciable affinity for the 5-HT_{1A} receptor (K_i=2.5 nM), and has low affinity for other receptor sites in the brain. RU 24969 could decrease fluid consumption and increase forward locomotion[1].

IC_{50} & Target	5-HT_{1B} Receptor	5-HT_{1A} Receptor
	0.38 nM (Ki)	2.5 nM (Ki)

In Vitro

RU 24969 (10 μM) reduces K^+-stimulated release of [^{3}H]-5-HT from ratfrontalcortex slices in vitro[2].

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

In Vivo

RU 24969 (0.03-3.0 mg/kg; s.c.) dose-dependently decreases water consumption in water deprived rats[1].

RU 24969 (0.3-3.0 mg/kg; s.c.) dose-dependently increases forward locomotion[1].

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

Animal Model:	Male Sprague-Dawley rats[1]
Dosage:	0.03, 0.3, 1.0, 3.0 mg/kg
Administration:	A single s.c.
Result:	Decreased water consumption significantly at dose of 0.3, 1.0, and 3.0 mg/kg.

REFERENCES

[1]. Aronsen D, et, al. RU 24969-produced adipsia and hyperlocomotion: differential role of 5HT 1A and 5HT 1B receptor mechanisms. Pharmacol Biochem Behav. 2014 Sep; 124: 1-4.

[2]. Brazell MP, et, al. The 5-HT1 receptor agonist RU-24969 decreases 5-hydroxytryptamine (5-HT) release and metabolism in the rat frontal cortex in vitro and in vivo. Br J Pharmacol. 1985 Sep; 86(1): 209-16.

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