(R)-(+)-HA-966

Cat. No.: HY-100822

CAS No.: 123931-04-4

Molecular Formula: $C_4H_8N_2O_2$

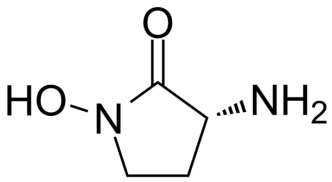
Molecular Weight: 116.12

Target: iGluR

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling

Storage:

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



SOLVENT & SOLUBILITY

In Vitro

H_2O : 100 mg/mL (861.18 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	8.6118 mL	43.0589 mL	86.1178 mL
5 mM	1.7224 mL	8.6118 mL	17.2236 mL
10 mM	0.8612 mL	4.3059 mL	8.6118 mL

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

BIOLOGICAL ACTIVITY

Description

(R)-(+)-HA-966 ((+)-HA-966) is a partial agonist/antagonist of glycine site of the N-methyl-D-aspartate (NMDA) receptor complex. (R)-(+)-HA-966 selectively blocks the activation of the mesolimbic dopamine system by amphetamine[1][2]. (R)-(+)-HA-966 can cross the blood-brain barrier and has the potential for neuropathic and acute pain[3].

IC_{50} & Target

glycine site of the NMDA receptor[1][2]

In Vivo

(R)-(+)-HA-966 ((+)-HA-966; 10 mg/kg; IV) significantly attenuates the dose-dependent pressor response and the associated tachycardic response elicited by systemic NMDA (125, 250, 500, and 1000 mg/kg; i.v.)[3].

(+)-HA-966 (30, 100 mg/kg; IP) dose-dependently blocks the enhancement of dopamine synthesis induced in the nucleus accumbens by amphetamine, but is without effect on the increase in dopamine synthesis in the striatum in male BKTO mice (20-30g)[1].

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

Animal Model:	Sprague-Dawley rats (11 to 12 weeks old)[3]

Dosage:	10 mg/kg
Administration:	IV
Result:	Significantly attenuated the dose-dependent pressor response and the associated tachycardic response elicited by systemic NMDA.

REFERENCES

[1]. Hutson PH, et al. R-(+)-HA-966, a glycine/NMDA receptor antagonist, selectively blocks the activation of the mesolimbic dopamine system by amphetamine. Br J Pharmacol. 1991 Aug;103(4):2037-44.

[2]. Witkin JM, et al. Discriminative stimulus effects of R-(+)-3-amino-1-hydroxypyrrolid-2-one, [(+)-HA-966], a partial agonist of the strychnine-insensitive modulatory site of the N-methyl-D-aspartate receptor. J Pharmacol Exp Ther. 1995 Dec;275(3):1267-73.

[3]. Christensen D, et al. The antinociceptive effect of combined systemic administration of morphine and the glycine/NMDA receptor antagonist, (+)-HA966 in a rat model of peripheral neuropathy. Br J Pharmacol. 1998 Dec;125(8):1641-50.

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