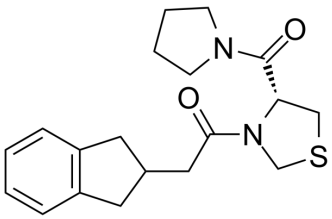
Z-321

Cat. No.:	HY-19123		
CAS No.:	130849-58-0		
Molecular Formula:	$C_{19}H_{24}N_2O_2S$		
Molecular Weight:	344.47		
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 : 250 mg/mL (725.75 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.9030 mL	14.5151 mL	29.0301 mL
	5 mM	0.5806 mL	2.9030 mL	5.8060 mL
	10 mM	0.2903 mL	1.4515 mL	2.9030 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: ≥ 6.25 mg/mL (18.14 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 6.25 mg/mL (18.14 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 6.25 mg/mL (18.14 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Z-321 is a prolylendopeptidase (PEP) inhibitor.

IC_{50} & Target

PEP[1]

In Vivo

Z-321 is a prolylendopeptidase (PEP) inhibitor. In the 100 or 200 mg/kg Z-321-treated groups, mean lordosis quotient (LQ) decreases after administration. However, there is no statistical difference among the values before and after. In contrast, the mean LQ in the 300 mg/kg Z-321-treated females is lower than that before injection (P<0.005). Furthermore, when compare

to that in the vehicle-treated control group, mean LQ is also significantly lower ($p<0.05$). The incidence of soliciting behavior decreases after treatment with 300 mg/kg Z-321, when compare to that before treatment, but there is no statistical difference. The present study also demonstrates that 300 mg/kg Z-321 is effective in inhibiting lordosis behavior without disturbance of locomotor activity[1].

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

PROTOCOL

Animal Administration [1]

Femal wistar rats (200 to 250 g) are used and housed under conditions of controlled temperature (23 to 26°C) and photoperiod (14: 10 h, light:dark). Fifty four rats are ovariectomized under ether anesthesia. Two weeks after ovariectomy, sexual behavioral tests are carried out before and after a treatment with Z-321 (100, 200 or 300 mg/kg). Another group of rats, 7 females are given 1 mL/kg of 10% gum arabic as control group[1].

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

REFERENCES

[1]. Oosuka I, et al. Decrease of sexual receptivity by prolylendopeptidase inhibitor in female rats. Jpn J Pharmacol. 2000 May;83(1):82-5.

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