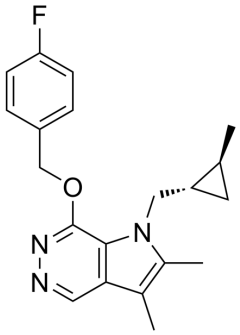
CS-526

Cat. No.:	HY-100413
CAS No.:	313272-12-7
Molecular Formula:	$C_{20}H_{22}FN_3O$
Molecular Weight:	339.41
Target:	Proton Pump
Pathway:	Membrane Transporter/Ion Channel
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

CS-526 is a potent, selective, reversible and orally active acid pump antagonist. CS-526 inhibits H^+,K^+-ATPase activity. CS-526 inhibits gastric acid secretion and prevents esophageal lesions. CS-526 has the potential for the research of gastroesophageal reflux disease[1].

In Vitro

CS-526 (0-100 μM; 60 min) inhibits H^+, K^+-ATPase and Na^+, K^+-ATPase activity in a dose-dependent manner with IC_{50} values of 61 nM, 10.4 μM, respectively[1].

CS-526 competitive binds to K^+ binding site of H^+, K^+-ATPase[1].

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

In Vivo

CS-526 (1, 3, 10, 30 mg/kg; intraduodenal or p.o.) inhibits gastric acid secretion in a dose-dependent manner in pylorus-ligated rats[1].

CS-526 (1, 3, 10, 30 mg/kg; intrapouch; 180 min) dose-dependently inhibits the histamine-induced gastric acid secretion in the Heidenhain pouch dogs[1].

CS-526 (1, 3, 10, 30 mg/kg; intraduodenal or p.o.) prevents esophageal lesions and acute gastric mucosal lesions[1].

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

Animal Model:	Pylorus-Ligated Rats[1]
Dosage:	1, 3, 10, 30 mg/kg
Administration:	Intraduodenal administration or p.o.
Result:	Dose-dependently inhibited gastric acid secretion with ID_{50} values of 2.8, 0.7 mg/kg for intraduodenal administration and oral administration, respectively.

Animal Model:	Reflux Esophagitis Model in Rats[1]
Dosage:	1, 3, 10 mg/kg
Administration:	Intraduodenal administration or p.o.
Result:	Significantly reduced the lesion scores with ID_{50} values of 5.4, 1.9 mg/kg for intraduodenal and p.o. respectively.

REFERENCES

[1]. Ito K, et al. Pharmacological profile of novel acid pump antagonist 7-(4-fluorobenzyloxy)-2,3-dimethyl-1-{[(1S,2S)-2-methyl cyclopropyl]methyl}-1H-pyrrolo[2,3-d]pyridazine (CS-526). J Pharmacol Exp Ther. 2007 Oct;323(1):308-17.

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