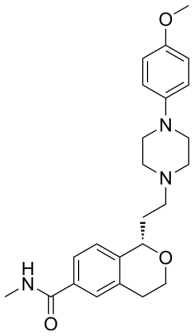
PNU109291

Cat. No.:	HY-103132
CAS No.:	187665-60-7
Molecular Formula:	$C_{24}H_{31}N_3O_3$
Molecular Weight:	409.52
Target:	5-HT Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	PNU109291 is a potent and selective 5-HT1D agonist. PNU109291 reduces dural plasma extravasation evoked by trigeminal ganglion stimulation[1].
In Vivo	PNU109291 (0.24, 2.4, 7.3, 24.4, 73.3 nmol/kg; s.c.) reduces dural plasma extravasation evoked by trigeminal ganglion stimulation in pigs[1]. PNU109291 (3 μM) inhibited evoked EPSCs (excitatory postsynaptic currents) in Freund's adjuvant (CFA) but not saline-injected rats[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	200-500g, male Hartley guinea pigs[1]
Dosage:	0.24, 2.4, 7.3, 24.4, 73.3 nmol/kg
Administration:	S.c.; 60 min before electrical stimulation
Result:	Dose-dependently decreased plasma protein extravasation with an IC_{50} value of 4.2 nmol/kg.

REFERENCES

[1]. Cutrer FM, et al. Effects of PNU-109,291, a selective 5-HT1D receptor agonist, on electrically induced dural plasma extravasation and capsaicin-evoked c-fos immunoreactivity within trigeminal nucleus caudalis. Neuropharmacology. 1999 Jul;38(7):1043-53.

[2]. Winters BL, et al. Inflammation induces developmentally regulated sumatriptan inhibition of spinal synaptic transmission. Br J Pharmacol. 2020 Aug;177(16):3730-3743.

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