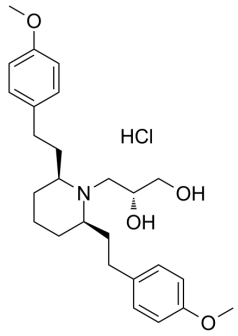
GZ-793A

Cat. No.:	HY-117883
CAS No.:	1356447-90-9
Molecular Formula:	$C_{26}H_{38}ClNO_4$
Molecular Weight:	464.04
Target:	Monoamine Transporter
Pathway:	Membrane Transporter/Ion Channel
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



BIOLOGICAL ACTIVITY

Description	GZ-793A is an orally active and selective vesicular monoamine transporter-2 (VMAT2) inhibitor, with an K_i of 0.029 μM. GZ-793A inhibits the neurochemical effects of methamphetamine (METH)-induced dopamine release. GZ-793A can be used for research of METH addiction[1][2][3].
IC_{50} & Target	Ki: 0.029 μM (VMAT2)[1].

In Vivo

GZ-793A (30, 60, 120 or 240 mg/kg; p.o.; once) decreases the number of METH infusions self-administered across each time interval evaluats in a dose-dependent manner[1].

GZ-793A (1-100 μM; 90 min) inhibits METH (5 μM)-evoked fractional dopamine releases[2].

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

Animal Model:	Adult male Sprague-Dawley rats[1].
Dosage:	30, 60, 120 or 240 mg/kg
Administration:	Oral administration; once.
Result:	Decreased the number of METH infusions self-administered in a dose-dependent manner, and with an ~85% reduction at the highest dose (240 mg/kg). Decreased the METH self-administration produced by lasted at least 180 min.

Animal Model:	Male Sprague-Dawley rats (250–275 g; 9-week-old; 0.5 mm thick rats coronal striatal slices are used)[2].
Dosage:	1-100 μM
Administration:	90 min
Result:	Inhibited methamphetamine-evoked dopamine released in a concentration-dependent manner.

REFERENCES

[1]. Wilmouth CE, et al. Oral administration of GZ-793A, a VMAT2 inhibitor, decreases methamphetamine self-administration in rats. Pharmacol Biochem Behav. 2013 Nov;112:29-33.

[2]. Nickell JR, et al. GZ-793A inhibits the neurochemical effects of methamphetamine via a selective interaction with the vesicular monoamine transporter-2. Eur J Pharmacol. 2017 Jan 15;795:143-149.

[3]. Nickell JR, et al. The vesicular monoamine transporter-2: an important pharmacological target for the discovery of novel therapeutics to treat methamphetamine abuse. Adv Pharmacol. 2014;69:71-106.

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