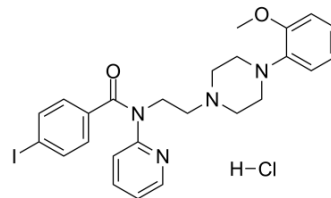


p-MPPI hydrochloride

Cat. No.:	HY-120738
CAS No.:	220643-77-6
Molecular Formula:	C ₂₅ H ₂₈ ClIN ₄ O ₂
Molecular Weight:	578.87
Target:	5-HT Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 17.86 mg/mL (30.85 mM; Need ultrasonic)				
		Solvent Concentration	Mass		
	Preparing Stock Solutions		1 mg	5 mg	10 mg
		1 mM	1.7275 mL	8.6375 mL	17.2750 mL
		5 mM	0.3455 mL	1.7275 mL	3.4550 mL
	10 mM	0.1728 mL	0.8638 mL	1.7275 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: ≥ 1.79 mg/mL (3.09 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 1.79 mg/mL (3.09 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1.79 mg/mL (3.09 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	p-MPPI hydrochloride is a selective 5-HT _{1A} receptor antagonist with high affinity for 5-HT _{1A} receptors. p-MPPI hydrochloride can cross the blood-brain barrier, and has clear antidepressant and anxiolytic-like effects ^{[1][2]} .
IC ₅₀ & Target	5-HT _{1A} Receptor
In Vitro	p-MPPI hydrochloride has no agonist activity in both in vitro and in vivo tests of pre- and post-synaptic 5-HT _{1A} receptor activity ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

p-MPPI hydrochloride (0.5-4.5 mg/kg; i.p.) shows anxiolytic-like profile in the murine elevated plus-maze^[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Adult male Swiss Webster mice (aged 8-9 weeks) ^[2]
Dosage:	0.5, 1.5, 4.5 mg/kg
Administration:	i.p.
Result:	Produced a significant and dose-related anxiolytic profile on both conventional (open arm avoidance) and ethological (risk assessment) measures.

REFERENCES

[1]. Sørensen E, et al. The selective 5-HT(1A) receptor antagonist p-MPPI antagonizes sleep-waking and behavioural effects of 8-OH-DPAT in rats. Behav Brain Res. 2001 Jun;121(1-2):181-7.

[2]. Cao BJ, et al. Anxiolytic-like profile of p-MPPI, a novel 5HT1A receptor antagonist, in the murine elevated plus-maze. Psychopharmacology (Berl). 1997 Feb;129(4):365-71.

Caution: Product has not been fully validated for medical applications. For research use only.

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