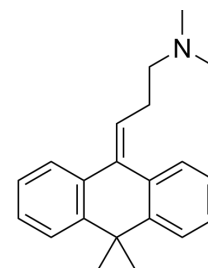


Melitracen hydrochloride

Cat. No.:	HY-108256
CAS No.:	10563-70-9
Molecular Formula:	C ₂₁ H ₂₆ ClN
Molecular Weight:	327.89
Target:	5-HT Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



HCl

SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 100 mg/mL (304.98 mM; Need ultrasonic)					
	DMSO : 100 mg/mL (304.98 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
		Concentration				
		1 mM		3.0498 mL	15.2490 mL	30.4980 mL
5 mM			0.6100 mL	3.0498 mL	6.0996 mL	
	10 mM		0.3050 mL	1.5249 mL	3.0498 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: ≥ 2.5 mg/mL (7.62 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (7.62 mM); Clear solution					
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (7.62 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	Melitracen hydrochloride is an orally active biphasic antidepressant and antianxiety agent. Melitracen hydrochloride can inhibit the uptake of Norepinephrine and 5-HT (serotonin) through the presynaptic membrane inducing the increase of monoamine transmitters in synaptic space ^{[1][2]} .
IC₅₀ & Target	5-HT receptor ^[1]
In Vivo	Single oral administration of either Imipramine or Melitracen produces a marked and long lasting mydriasis in mice. The mydriatic effect of Melitracen is more marked and longer lasting. Melitracen is more effective with respect to behavioral

excitement. Single oral administration of Melitracen produces lowering of the catechol amine levels in the brain stem, the cerebral cortex, the spleen, and the adrenals^[2].

No significant changes in catecholamine levels of the brain stem, the cerebral cortex, and the spleen were observed in rats receiving daily doses of Melitracen for 13 and 15 weeks. The adrenalin level in the adrenals, however, is slightly decreased^[2].

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

REFERENCES

[1]. Xiaoqian Zhou , et al. The Efficacy of Flupentixol-Melitracen in the Adjuvant Therapy of Ulcerative Colitis in the Chinese Population: A Meta-Analysis. *Gastroenterol Res Pract.* 2019 Feb 28;2019:3480732.

[2]. K Shimamoto, et al. Myriatic Effect of 9-(gamma-dimethylamino-propylidene)-10, 10-diemthyl-9, 10-dihydroanthracene Hydrochloride (Melitracen) in Mice and Rats. *Acta Sch Med Univ Kioto.* 1967 Jul;40(1):38-47.

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

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