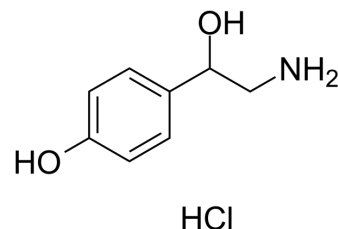


Octopamine hydrochloride

Cat. No.:	HY-B0528A
CAS No.:	770-05-8
Molecular Formula:	C ₈ H ₁₂ ClNO ₂
Molecular Weight:	189.64
Target:	Adrenergic Receptor; Endogenous Metabolite
Pathway:	GPCR/G Protein; Neuronal Signaling; Metabolic Enzyme/Protease
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	DMSO : ≥ 100 mg/mL (527.31 mM)				
	H ₂ O : ≥ 50 mg/mL (263.66 mM)				
* "≥" means soluble, but saturation unknown.					
Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		1 mM	5.2731 mL	26.3657 mL	52.7315 mL
		5 mM	1.0546 mL	5.2731 mL	10.5463 mL
		10 mM	0.5273 mL	2.6366 mL	5.2731 mL
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: PBS Solubility: 100 mg/mL (527.31 mM); Clear solution; Need ultrasonic				

BIOLOGICAL ACTIVITY

Description	Octopamine ((±)-p-Octopamine) hydrochloride, a biogenic monoamine structurally related to noradrenaline, acts as a neurohormone, a neuromodulator and a neurotransmitter in invertebrates. Octopamine hydrochloride can stimulate alpha2-adrenoceptors (ARs) in Chinese hamster ovary cells transfected with human alpha2-ARs. Octopamine hydrochloride increased glycogenolysis, glycolysis, oxygen uptake, gluconeogenesis and the portal perfusion pressure ^{[1][2][3]} .	
IC ₅₀ & Target	Human Endogenous Metabolite	α ₂ -adrenergic receptor
In Vitro	Octopamine has a prominent role in influencing multiple physiological events: (a) as a neuromodulator, it regulates desensitization of sensory inputs, arousal, initiation, and maintenance of various rhythmic behaviors and complex behaviors such as learning and memory; (b) as a neurotransmitter, it regulates endocrine gland activity; and (c) as a neurohormone, it induces mobilization of lipids and carbohydrates. Octopamine exerts its effects by binding to specific proteins that belong to	

the superfamily of G protein-coupled receptors and share the structural motif of seven transmembrane domains^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Insect Mol Biol. 2022 Jun 2.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Farooqui T. Octopamine-mediated neuromodulation of insect senses. *Neurochem Res.* 2007;32(9):1511-1529.
- [2]. Roeder T. Octopamine in invertebrates. *Prog Neurobiol.* 1999;59(5):533-561.
- [3]. Axelrod J, et al. Octopamine. *Nature.* 1977;265(5594):501-504.
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Caution: Product has not been fully validated for medical applications. For research use only.

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