

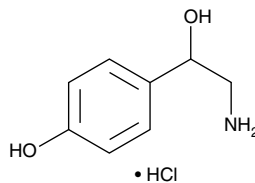
# Product Information



## (±)-*para*-Octopamine (hydrochloride)

Item No. 14279

**CAS Registry No.:** 770-05-8  
**Formal Name:**  $\alpha$ -(aminomethyl)-4-hydroxy-benzenemethanol, monohydrochloride  
**Synonyms:**  $\beta$ ,4-Dihydroxyphenethylamine, Epirenor, Norfen, NSC 108685, *p*-Octopamine  
**MF:**  $C_8H_{11}NO_2 \cdot HCl$   
**FW:** 189.6  
**Purity:**  $\geq 98\%$   
**Stability:**  $\geq 2$  years at  $-20^\circ C$   
**Supplied as:** A crystalline solid  
**UV/Vis.:**  $\lambda_{max}$ : 226, 276 nm



### Laboratory Procedures

For long term storage, we suggest that (±)-*para*-octopamine ((±)-*p*-octopamine) (hydrochloride) be stored as supplied at  $-20^\circ C$ . It should be stable for at least two years.

(±)-*p*-Octopamine (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the (±)-*p*-octopamine (hydrochloride) in the solvent of choice. (±)-*p*-Octopamine (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of (±)-*p*-octopamine (hydrochloride) in ethanol is approximately 10 mg/ml and approximately 12 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of (±)-*p*-octopamine (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of (±)-*p*-octopamine (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

(±)-*p*-Octopamine is an endogenous biogenic amine commonly found in invertebrates. Structurally similar to norepinephrine, (±)-*p*-octopamine activates adrenergic-like receptors and evokes effects, in invertebrates, that parallel those of norepinephrine and epinephrine in mammals.<sup>1,2</sup> In humans, (±)-*p*-octopamine is considered a trace amine which may interfere with aminergic pathways as well as signal through trace amine-associated receptors.<sup>3</sup>

### References

1. Evans, P.D. and Maqueira, B. Insect octopamine receptors: A new classification scheme based on studies of cloned *Drosophila* G-protein coupled receptors. *Invert. Neurosci.* **5**(3-4), 111-118 (2005).
2. Pflüger, H.-J. and Duch, C. Dynamic neural control of insect muscle metabolism related to motor behavior. *Physiology* **26**, 293-303 (2011).
3. Zucchi, R., Chiellini, G., Scanlan, T.S., *et al.* Trace amine-associated receptors and their ligands. *Br. J. Pharmacol.* **149**(8), 967-978 (2006).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/14279](http://www.caymanchem.com/catalog/14279)

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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