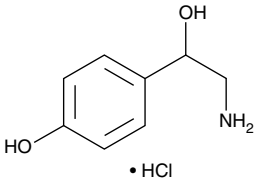
Product Information

(±)-*para*-Octopamine (hydrochloride)

Item No. 14279

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



Laboratory Procedures

For long term storage, we suggest that (±)-*para*-octopamine ((±)-*p*-octopamine) (hydrochloride) be stored as supplied at -20°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.[1,2] In humans, (±)-*p*-octopamine is considered a trace amine which may interfere with aminergic pathways as well as signal through trace amine-associated receptors.[3]

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

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

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