

**Product Name:** Octopamine hydrochloride

**Catalog No.:** 2242

**Batch No.:** 1

**CAS Number:** 770-05-8

**IUPAC Name:**  $\alpha$ -(Aminomethyl)-4-hydroxybenzenemethanol hydrochloride

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>8</sub>H<sub>11</sub>NO<sub>2</sub>.HCl

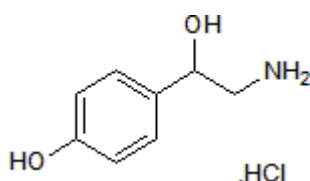
**Batch Molecular Weight:** 189.64

**Physical Appearance:** White solid

**Solubility:** water to 100 mM

**Storage:** Desiccate at RT

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.72 (Isopropanol:Ammonia solution [8:6])

**HPLC:** Shows 100% purity

**<sup>1</sup>H NMR:** Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**IUPAC Name:**  $\alpha$ -(Aminomethyl)-4-hydroxybenzenemethanol hydrochloride

**Description:**

Invertebrate biogenic amine neurotransmitter, related to noradrenalin, that is an adrenoceptor agonist. Stimulates lipolysis in mammalian adipocytes via activation of  $\beta_3$  receptors. Has dual effect on glucose transport in adipocytes: inhibits transport via  $\beta_3$  receptor activation but stimulates transport when oxidized by MAO. Also activates human  $\alpha_{2A}$  receptors, inhibiting subsequent cAMP production.

**Physical and Chemical Properties:**

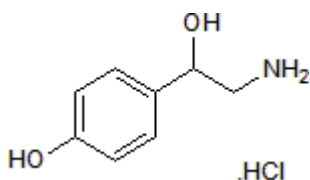
Batch Molecular Formula:  $C_8H_{11}NO_2.HCl$

Batch Molecular Weight: 189.64

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Desiccate at RT

**Solubility & Usage Info:**

water to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Airriess et al** (1997) Selective inhibition of adenylyl cyclase by octopamine via a human cloned  $\alpha_{2A}$ -adrenoceptor. *Br.J.Pharmacol.* **122** 191. PMID: 9313925.

**Roeder** (1999) Octopamine in invertebrates. *Prog.Neurobiol.* **59** 533. PMID: 10515667.

**Carpene et al** (1999) Selective activation of  $\beta_3$ -adrenoceptors by octopamine: comparative studies in mammalian fat cells. *Naunyn-Schmied.Arch.Pharmacol.* **359** 310.

**Visentin et al** (2001) Dual action of octopamine on glucose transport into adipocytes: inhibition via  $\beta_3$ -adrenoceptor activation and stimulation via oxidation by amine oxidases. *J.Pharmacol.Exp.Ther.* **299** 96. PMID: 11561068.

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