

Certificate of Analysis

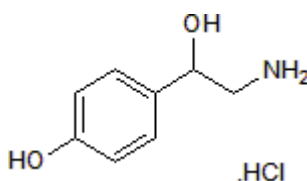
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Product Name: Octopamine hydrochloride
CAS Number: 770-05-8
IUPAC Name: α -(Aminomethyl)-4-hydroxybenzenemethanol hydrochloride

Catalog No.: 2242
Batch No.: 1
EC Number: 212-216-4

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₈H₁₁NO₂.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_f = 0.72 (Isopropanol:Ammonia solution [8:6])
HPLC: Shows 100% purity
¹H NMR: Consistent with structure

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

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IUPAC Name: α -(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 β_3 receptors. Has dual effect on glucose transport in adipocytes: inhibits transport via β_3 receptor activation but stimulates transport when oxidized by MAO. Also activates human α_{2A} receptors, inhibiting subsequent cAMP production.

Physical and Chemical Properties:

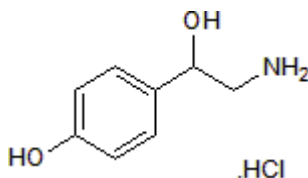
Batch Molecular Formula: C₈H₁₁NO₂.HCl

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 α_{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 β_3 -adrenoceptors by octopamine: comparative studies in mammalian fat cells. *Naunyn-Schmied.Arch.Pharmacol.* **359** 310.

Visentini et al (2001) Dual action of octopamine on glucose transport into adipocytes: inhibition via β_3 -adrenoceptor activation and stimulation via oxidation by amine oxidases. *J.Pharmacol.Exp.Ther.* **299** 96. PMID: 11561068.

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