

Certificate of Analysis

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Product Name: Xamoterol hemifumarate

Catalog No.: 0950

Batch No.: 4

CAS Number: 73210-73-8

EC Number: 277-319-9

IUPAC Name: 1-(4-Hydroxyphenoxy)-3-[2-(4-morpholinocarboxamido)ethylamino]-2-propanol hemifumarate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{16}H_{25}N_3O_5 \cdot 0.5C_4H_4O_4 \cdot \frac{1}{4}H_2O$

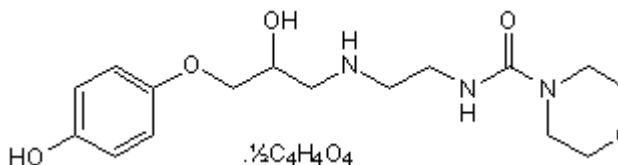
Batch Molecular Weight: 401.93

Physical Appearance: White solid

Solubility: water to 50 mM
DMSO to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: $R_f = 0.11$ (Ethyl acetate:Methanol:Triethylamine [4:1:0.6])

HPLC: Shows 100% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	53.79	6.9	10.45
Found	53.74	6.82	10.52

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

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Description:

β_1 -adrenoceptor-selective partial agonist (pA_2 values are 7.4 - 7.8 and 5.2 - 6.2 at β_1 - and β_2 -adrenoceptors respectively).

Physical and Chemical Properties:

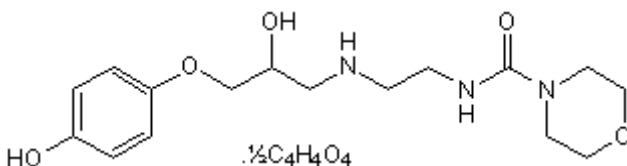
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Batch Molecular Weight: 401.93

Physical Appearance: White solid

Minimum Purity: >97%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

water to 50 mM

DMSO 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:

Barlow et al (1981) β -Adrenoceptor stimulant properties of aminoalkylamino-substituted 1-aryl-2-ethanols and 1-(aryloxy)-2-propanols. *J.Med.Chem.* **24** 315. PMID: 6115058.

Nuttall and Snow (1982) The cardiovascular effects of ICI 118,587: a β_1 -adrenoceptor partial agonist. *Br.J.Pharmacol.* **77** 381. PMID: 6128041.

Malta et al (1985) The *in vitro* pharmacology of xamoterol (ICI 118,587). *Br.J.Pharmacol.* **85** 179. PMID: 2862938.

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