

Certificate of Analysis

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Product Name: Bifemelane hydrochloride

Catalog No.: 0767

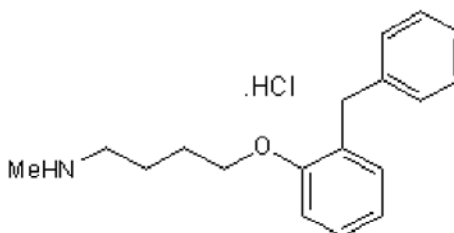
Batch No.: 2

CAS Number: 62232-46-6

IUPAC Name: 4-(2-Benzylphenoxy)-N-methylbutylamine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈H₂₃NO.HCl
Batch Molecular Weight: 305.84
Physical Appearance: White solid
Solubility: water to 100 mM
DMSO to 100 mM
Storage: Desiccate at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.4 (Chloroform:Methanol [5:1])
HPLC: Shows >99.8% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen	Chlorine
Theoretical	70.69	7.91	4.58	11.59
Found	70.61	7.85	4.61	11.64

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

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Description:

Bifemelane hydrochloride is an antidepressant MAO inhibitor. Reverses catalepsy induced by Tetrabenazine (Cat. No. 2175) in mice and increases locomotor activity in MPTP-treated marmosets.

Physical and Chemical Properties:

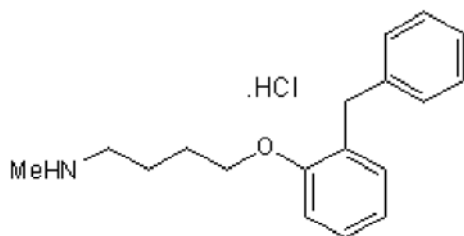
Batch Molecular Formula: C₁₈H₂₃NO.HCl

Batch Molecular Weight: 305.84

Physical Appearance: White solid

Minimum Purity: ≥99%

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

water to 100 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:

Nomoto et al (1994) Effects of bifemelane on parkinsonism induced by 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP) in the common marmoset. *Neurosci.Lett.* **178** 95. PMID: 7816348.

Naoi et al (1988) 4-(o-benzylphenoxy)-N-methylbutylamine (bifemelane) and other 4-(o-benzylphenoxy)-N-methylalkylamines as new inhibitors of type A and B monoamine oxidase. *J.Neurochem.* **50** 243. PMID: 3335842.

Tobe et al (1981) Pharmacological evaluation of 2-(4-methylaminobutoxy)diphenylmethane hydrochloride (MCI-2016), a new psychotropic drug with antidepressant activity. *Arzneimittelforschung* **31** 1278. PMID: 7197535.

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