

Certificate of Analysis

Product Name: BTS 54-505 hydrochloride

Catalog No.: 2322

Batch No.: 1

CAS Number: 84484-78-6

IUPAC Name: 1-(4-Chlorophenyl)- α -(2-methylpropyl)cyclobutanemethanamine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅H₂₂NCl.HCl·½H₂O

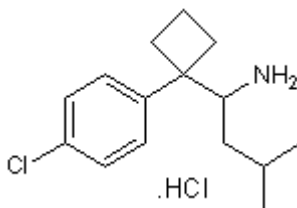
Batch Molecular Weight: 297.27

Physical Appearance: White solid

Solubility: water to 50 mM
DMSO to 100 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.4 (Dichloromethane:Methanol [9:1])

Melting Point: At 95°C

HPLC: Shows 100% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	60.61	8.14	4.71
Found	60.32	7.95	4.4

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

Product Name: **BTS 54-505 hydrochloride**

Catalog No.: **2322**

Batch No.: **1**

CAS Number: 84484-78-6

IUPAC Name: 1-(4-Chlorophenyl)- α -(2-methylpropyl)cyclobutanemethanamine hydrochloride

Description:

Potently active primary amine metabolite of sibutramine (Cat. No. 2290), exhibits a similar pharmacological profile to the parent compound. Inhibits serotonin and noradrenalin reuptake more potently than sibutramine in vitro. Reduces food intake in rodents following i.c.v. administration and increases energy expenditure via thermogenesis in vivo.

Physical and Chemical Properties:

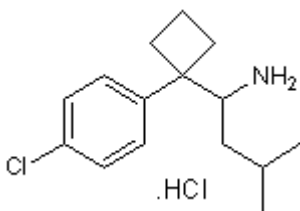
Batch Molecular Formula: $C_{15}H_{22}NCl.HCl \cdot \frac{1}{2}H_2O$

Batch Molecular Weight: 297.27

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Luscombe et al (1989) The contribution of metabolites to the rapid and potent down-regulation of rat cortical beta-adrenoceptors by the putative antidepressant sibutramine hydrochloride. *Neuropharmacology* **28** 129. PMID: 2541365.

Gundlah et al (1997) *In vivo* criteria to differentiate monoamine reuptake inhibitors from releasing agents: sibutramine is a reuptake inhibitor. *J.Pharmacol.Exp.Ther.* **283** 581. PMID: 9353373.

Liu et al (2002) Mechanism of the thermogenic effect of Metabolite 2 (BTS 54 505), a major pharmacologically active metabolite of the novel anti-obesity drug, sibutramine. *Int.J.Obes.Relat.Metab.Disord.* **26** 1245. PMID: 12187403.

Storage: Desiccate 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.

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