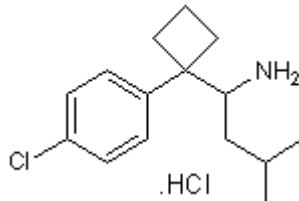


Certificate of Analysiswww.tocris.com**Product Name:** **BTS 54-505 hydrochloride****Catalog No.:** 2322**Batch No.:** 1**CAS Number:** 84484-78-6**IUPAC Name:** 1-(4-Chlorophenyl)- α -(2-methylpropyl)cyclobutanemethanamine hydrochloride**1. PHYSICAL AND CHEMICAL PROPERTIES****Batch Molecular Formula:** C₁₅H₂₂NCI.HCl· $\frac{1}{2}$ H₂O**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

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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:

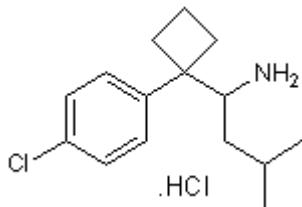
Batch Molecular Formula: C₁₅H₂₂NCI.HCl.½H₂O

Batch Molecular Weight: 297.27

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



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.

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.

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