

## Certificate of Analysis

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**Product Name:** SB 204070

**Catalog No.:** 1373

**Batch No.:** 1

CAS Number: 148688-01-1

IUPAC Name: 8-Amino-7-chloro-2,3-dihydro-1,4-benzodioxan-5-carboxylic acid, 1'-butyl-4'-piperidinylmethyl ester hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>19</sub>H<sub>27</sub>ClN<sub>2</sub>O<sub>4</sub>.HCl

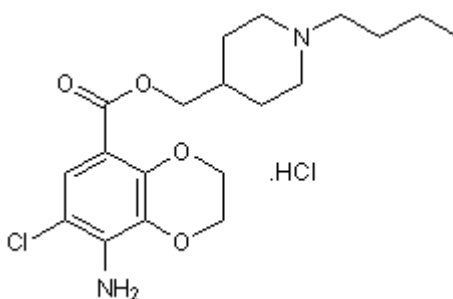
**Batch Molecular Weight:** 419.34

**Physical Appearance:** Off-white solid

**Solubility:** DMSO to 100 mM

**Storage:** Desiccate at RT

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.4 (Dichloromethane:Methanol:Ammonia soln. [90:9:1])

**HPLC:** Shows 99.2% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

Carbon Hydrogen Nitrogen

Theoretical 54.42 6.73 6.68

Found 54.46 6.67 6.77

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**Description:**

Potent and selective 5-HT<sub>4</sub> receptor antagonist (pIC<sub>50</sub> = 10.1). Displays >5000-fold selectivity for 5-HT<sub>4</sub> over 5-HT<sub>1A</sub>, 5-HT<sub>1D</sub>, 5-HT<sub>1E</sub>, 5-HT<sub>2A</sub>, 5-HT<sub>2C</sub>, and 5-HT<sub>3</sub> receptors. Exhibits anxiolytic activity upon systemic administration in vivo.

**Physical and Chemical Properties:**

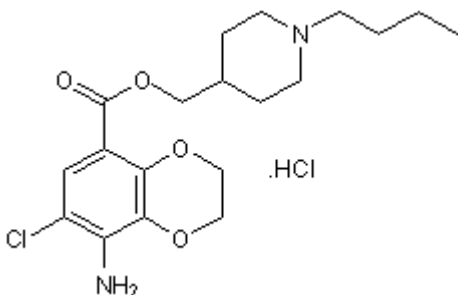
Batch Molecular Formula: C<sub>19</sub>H<sub>27</sub>ClN<sub>2</sub>O<sub>4</sub>·HCl

Batch Molecular Weight: 419.34

Physical Appearance: Off-white solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Desiccate at RT

**Solubility & Usage Info:**

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:**

**Gaster et al** (1993) (1-Butyl-4-piperidinyl)methyl 8-amino-7-chloro-1,4-benzodioxane-5-carboxylate hydrochloride: a highly potent and selective 5-HT<sub>4</sub> antagonist derived from metoclopramide. *J.Med.Chem.* **36** 4121. PMID: 8258837.

**Bingham et al** (1995) Antagonism by SB 204070 of 5-HT-evoked contractions in the dog stomach: an in-vivo model of 5-HT<sub>4</sub> receptor function. *J.Pharm.Pharmacol.* **47** 219. PMID: 7602484.

**Prins et al** (2000) An improved in vitro bioassay for the study of 5-HT<sub>4</sub> receptors in the human isolated large intestine circular muscle. *Br.J.Pharmacol.* **129** 1601. PMID: 10780964.

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**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel:+1 612 379 2956