

Product Name: TCB-2

Catalog No.: 2592

Batch No.: 6

CAS Number: 912342-28-0

IUPAC Name: (4-Bromo-3,6-dimethoxybenzocyclobuten-1-yl)methylamine hydrobromide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₁H₁₄BrNO₂.HBr.

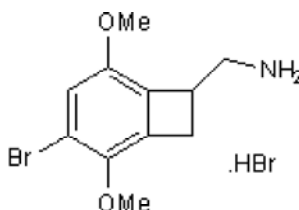
Batch Molecular Weight: 353.05

Physical Appearance: White solid

Solubility: water to 25 mM
DMSO to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.1% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	37.42	4.28	3.97
Found	37.62	4.28	3.96

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

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Description:

TCB-2 is a high affinity 5-HT_{2A} receptor agonist (K_i values are 0.73 and 0.75 nM for rat and human receptors respectively). Potently stimulates IP₃ accumulation in NIH3T3 cells stably expressing rat 5-HT_{2A} receptors (EC₅₀ = 36 nM). Induces head twitches and hypothermia in mice following i.p. administration.

Physical and Chemical Properties:

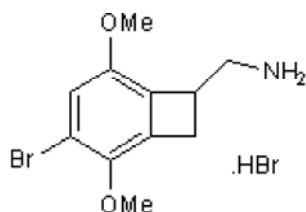
Batch Molecular Formula: C₁₁H₁₄BrNO₂.HBr.

Batch Molecular Weight: 353.05

Physical Appearance: White solid

Minimum Purity: ≥99%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

water to 25 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:

Niebert et al (2011) Expression and function of serotonin 2A and 2B receptors in the mammalian respiratory network. *PLoS One* **6** e21395. PMID: 21789169.

Fox et al (2010) The serotonin 5-HT_{2A} receptor agonist TCB-2: a behavioral and neurophysiological analysis. *Psychopharmacology* **212** 13. PMID: 19823806.

McLean et al (2006) 1-Aminomethylbenzocycloalkanes: conformationally restricted hallucinogenic phenethylamine analogues as functionally selective 5-HT_{2A} receptor agonists. *J. Med. Chem.* **49** 5794. PMID: 16970404.

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