## **Certificate of Analysis**

### www.tocris.com

Print Date: May 30th 2018

#### **BD 1063 dihydrochloride** Product Name:

CAS Number: 206996-13-6 IUPAC Name:

TOCR

a biotechne

1-[2-(3,4-Dichlorophenyl)ethyl]-4-methylpiperazine dihydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula: Batch Molecular Weight: Physical Appearance:** Solubility: Storage: **Batch Molecular Structure:** 

C13H18CI2N2.2HCI 346.13 White solid water to 100 mM Store at RT

Found

CI MeN .2HCI

45.12

#### 2. ANALYTICAL DATA

TLC: HPLC: <sup>1</sup>H NMR: Mass Spectrum: Microanalysis:

 $R_f = 0.4$  (Dichloromethane:Methanol [9:1]) Shows 99.8% purity Consistent with structure Consistent with structure Carbon Hydrogen Nitrogen Theoretical 45.11 5.82 8.09

5.8

8

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

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Catalog No.: 0883 Batch No.: 5

# TOCRIS a biotechne brand

### **Product Information**

#### Print Date: May 30th 2018

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Batch No.: 5

#### Product Name: BD 1063 dihydrochloride

CAS Number: 206996-13-6

IUPAC Name: 1-[2-(3,4-Dichlorophenyl)ethyl]-4-methylpiperazine dihydrochloride

#### **Description:**

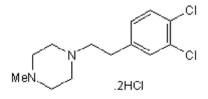
 $σ_1$  receptor antagonist, approximately 50-fold selective over  $σ_2$  sites and ≥100-fold selective over opioid, PCP, muscarinic, dopamine,  $α_1$ ,  $α_2$ , β adrenoceptor, 5-HT<sub>1</sub> and 5-HT<sub>2</sub> receptors. Prevents hyperlocomotion following cocaine administration in mice.

#### Physical and Chemical Properties:

Batch Molecular Formula: C<sub>13</sub>H<sub>18</sub>Cl<sub>2</sub>N<sub>2</sub>.2HCl Batch Molecular Weight: 346.13 Physical Appearance: White solid

#### Minimum Purity: >99%

#### **Batch Molecular Structure:**



#### Storage: Store at RT

#### Solubility & Usage Info:

water 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).

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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:**

Liu *et al* (2005) Cocaine up-regulated fra-2 and σ-1 receptor gene and protein expression in brain regions involved in addiction and reward. J.Pharmacol.Exp.Ther. **314** 770. PMID: 15879001.

**McCracken** *et al* (1999) Novel  $\sigma$  receptor ligands attenuate the locomotor stimulatory effects of cocaine. Eur.J.Pharmacol. **365** 35. PMID: 9988120.

**Matsumoto** *et al* (1995) Characterisation of two novel  $\sigma$  receptor ligands: antidystonic effects in rats suggest  $\sigma$  receptor antagonism. Eur.J.Pharmacol. **280** 301. PMID: 8566098.

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