# **Certificate of Analysis**

Print Date: Sep 4th 2019

## Product Name: S 38093

TOCRIS

a biotechne

Storage:

CAS Number: 1403835-45-9

IUPAC Name: rel-4-[3-[(3aR,6aS)-Hexahydrocyclopenta[c]pyrrol-2(1H)-yl]propoxy]benzamide

# 1. PHYSICAL AND CHEMICAL PROPERTIES

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

**Batch Molecular Structure:** 

 $C_{17}H_{24}N_2O_2.1/_4H_2O_2$ 292.89 White solid DMSO to 100 mM ethanol to 50 mM Store at -20°C

H NH<sub>2</sub>

# 2. ANALYTICAL DATA

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

Shows 98.6% purity Consistent with structure Consistent with structure

Carbon Hydrogen Nitrogen Theoretical 69.71 8.43 9.56 Found 69.7 8.3 9.43

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

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# www.tocris.com

Catalog No.: 6778 Batch No.: 1

# TOCRIS a biotechne brand

# **Product Information**

# www.tocris.com

## Product Name: S 38093

CAS Number: 1403835-45-9

**IUPAC Name:** 

rel-4-[3-[(3aR,6aS)-Hexahydrocyclopenta[c]pyrrol-2(1H)-yl]propoxy]benzamide

## **Description:**

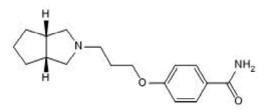
H<sub>3</sub> antagonist and inverse agonist (K<sub>i</sub> values are 8.8, 1.2 and 1.44 μM, at rat, human and mouse, respectively). Exhibits no activity at other histaminergic receptors. Antagonizes agonist action at mouse H<sub>3</sub> receptors (K<sub>B</sub> = 0.65 μM). Displays inverse agonist action in cells expressing a high H<sub>3</sub> receptor density, (EC<sub>50</sub> values are 9 and 1.7 μM, at human and rat H<sub>3</sub> receptors, respectively). Exhibits antihyperalgesic effect in a mouse diabetic neuropathy model in vivo. Promotes hippocampal neurogenesis in a mouse Alzheimer's disease model. Antinociceptive and procognitive. Also σ<sub>1</sub> receptor antagonist. Exhibits ~30-fold... Please see product datasheet on www.tocris.com for full description.

## **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>17</sub>H<sub>24</sub>N<sub>2</sub>O<sub>2</sub>.<sup>1</sup>/<sub>4</sub>H<sub>2</sub>O Batch Molecular Weight: 292.89 Physical Appearance: White solid

Minimum Purity: >98%

### **Batch Molecular Structure:**



#### **References:**

**Riddy** *et al* (2019) Drug-receptor kinetics and sigma-1 receptor affinity differentiate clinically evaluated histamine H3 receptor antagonists. Neuropharmacology **144** 244. PMID: 30359639.

**Chaumette** *et al* (2018) Effects of S 38093, an antagonist/inverse agonist of histamine  $H_3$  receptors, in models of neuropathic pain in rats. Eur.J.Pain. **22** 127. PMID: 28877402.

**Guilloux** *et al* (2017) S 38093, a histamine H<sub>3</sub> antagonist/inverse agonist, promotes hippocampal neurogenesis and improves context discrimination task in aged mice. Sci.Rep. **7** 42946. PMID: 28218311.

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#### **Storage:** Store at -20°C

Solubility & Usage Info: DMSO to 100 mM ethanol to 50 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.

Batch No.: 1