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## **Certificate of Analysis**

## www.tocris.com

Print Date: Jun 23rd 2023

## Product Name: DREADD agonist 21 dihydrochloride

Catalog No.: 6422 Batch No.: 3

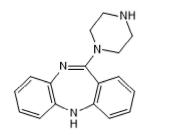
CAS Number: 2250025-92-2 IUPAC Name: 11-(1-Piperazi

11-(1-Piperazinyl)-5*H*-dibenzo[*b*,*e*][1,4]diazepine dihydrochloride

## 1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: Batch Molecular Weight: Physical Appearance: Solubility: C<sub>17</sub>H<sub>18</sub>N<sub>4</sub>.2HCl.1<sup>1</sup>/<sub>4</sub>H<sub>2</sub>O 373.79 Yellow solid water to 100 mM DMSO to 100 mM Desiccate at RT

Storage: Batch Molecular Structure:



### 2. ANALYTICAL DATA

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

Shows 99.6% purity Consistent with structure Consistent with structure

	Carbon H	lydrogen <b>i</b>	Nitrogen	Chlorine
Theoretical	54.62	6.07	14.99	18.97
Found	53.76	6.2	14.68	17.9

2HCI

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

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CAS Number: 2250025-92-2

IUPAC Name: 11-(1-Piperazinyl)-5*H*-dibenzo[*b*,*e*][1,4]diazepine dihydrochloride

#### **Description:**

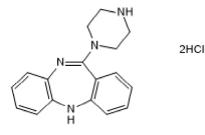
DREADD agonist 21 dihydrochloride is a water soluble version of DREADD agonist 21 (Cat. No. 5548). Potent muscarinic DREADD agonist.

#### **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>17</sub>H<sub>18</sub>N<sub>4</sub>.2HCl.1¼H<sub>2</sub>O Batch Molecular Weight: 373.79 Physical Appearance: Yellow solid

#### Minimum Purity: ≥98%

**Batch Molecular Structure:** 



#### Storage: Desiccate at RT

Solubility & Usage Info: water to 100 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  $45-60^{\circ}C$  water bath).

Catalog No.: 6422

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:**

**Chen** *et al* (2015) The first structure-activity relationship studies for designer receptors exclusively activated by designer drugs. ACS Chem.Neurosci. **18** 476. PMID: 25587888.

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