

# **Certificate of Analysis**

Print Date: Dec 12th 2023

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Product Name: TDI 11861 Catalog No.: 8036 Batch No.: 1

CAS Number: 2857049-72-8

IUPAC Name: (3R)-4-[2-[2-[[3-(2-Amino-6-chloro-4-pyrimidinyl)-1-(difluoromethyl)-1H-pyrazol-4-yl]methyl]phenoxy]ethyl]-3-

morpholinemethanol

#### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:**  $C_{22}H_{25}CIF_2N_6O_3$ .

Batch Molecular Weight: 494.93

Physical Appearance: White solid

Solubility: DMSO to 100 mM

ethanol to 100 mM

Storage: Store at -20°C

**Batch Molecular Structure:** 

### 2. ANALYTICAL DATA

HPLC: Shows 99.3% purity

Chiral HPLC: Shows 100.0% purity

H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 53.39 5.09 16.98 Found 53.55 4.91 16.91

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



# **Product Information**

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#### **Description:**

TDI 11861 is a potent and selective soluble adenylyl cyclase (sAC) inhibitor (IC $_{50}$  values are 3.3 nM and 5.5 nM in biochemical and cellular assays, respectively;  $K_d$  = 1.4 nM). Inhibits cellular sAC-specific cAMP accumulation (IC $_{50}$  = 7 nM) and blocks sperm capacitation in vitro. Cell permeable, not cytotoxic and suitable for both in vivo and in vitro use.

## **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>22</sub>H<sub>25</sub>ClF<sub>2</sub>N<sub>6</sub>O<sub>3</sub>.

Batch Molecular Weight: 494.93 Physical Appearance: White solid

Minimum Purity: ≥98%

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

Storage: Store at -20°C

### Solubility & Usage Info:

DMSO to 100 mM ethanol 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. \*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.

# **Licensing Information:**

Sold under license from Cornell University

#### References:

Balbach et al (2023) On-demand male contraception via acute inhibition of soluble adenylyl cyclase. Nat.Commun. 14 637. PMID: 36788210.

**Miller** *et al* (2022) Design, synthesis, and pharmacological evaluation of second-generation soluble adenylyl cyclase (sAC, ADCY10) inhibitors with slow dissociation rates. J.Med.Chem. *65* 15208. PMID: 36346696.

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