



# **Certificate of Analysis**

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Product Name: DPTN Catalog No.: 7628 Batch No.: 1

CAS Number: 325767-87-1

IUPAC Name: N-[4-(3,5-Dimethylphenyl)-5-(4-pyridinyl)-2-thiazolyl]-3-pyridinecarboxamide dihydrochloride

#### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>22</sub>H<sub>18</sub>N<sub>4</sub>OS.2HCl.½H<sub>2</sub>O

Batch Molecular Weight: 463.89
Physical Appearance: Yellow solid

**Solubility:** DMSO to 20 mM with gentle warming

Storage: Store at -20°C

**Batch Molecular Structure:** 

### 2. ANALYTICAL DATA

**HPLC:** Shows 99.0% purity

<sup>1</sup>H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen Chlorine

Theoretical 56.96 4.45 12.08 15.28 Found 56.07 4.34 11.76 14.58



# **Product Information**

Print Date: Jan 16th 2023

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IUPAC Name: N-[4-(3,5-Dimethylphenyl)-5-(4-pyridinyl)-2-thiazolyl]-3-pyridinecarboxamide dihydrochloride

#### **Description:**

DPTN is a potent and selective  $A_3$  adenosine receptor antagonist ( $K_i$  values are in the range 0.36 - 1.65 nM (hA<sub>3</sub>AR) and 1.6 - 8.53 nM (rA<sub>3</sub>AR)). Reduces intrapulmonary pressure when combined with Dexamethasone (Cat. No. 1126).

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

Batch Molecular Formula: C<sub>22</sub>H<sub>18</sub>N<sub>4</sub>OS.2HCl.½H<sub>2</sub>O

Batch Molecular Weight: 463.89 Physical Appearance: Yellow solid

Minimum Purity: ≥98%

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

Storage: Store at -20°C

## Solubility & Usage Info:

DMSO to 20 mM with gentle warming

#### 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:

**Gao** *et al* (2021) Pharmacological characterization of DPTN and other selective A<sub>3</sub> adenosine receptor antagonists. Purinergic Signal. *17* 737. PMID: 34713378.

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

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