

# **Certificate of Analysis**

Print Date: Feb 21st 2022

Batch No.: 1

www.tocris.com

Catalog No.: 3863

**Product Name:** Trovafloxacin mesylate

CAS Number: 147059-75-4

**IUPAC Name:**  $7-[(1\alpha,5\alpha,6\alpha)-6-Amino-3-azabicyclo[3.1.0]hex-3-yl]-1-(2,4-difluorophenyl)-6-fluoro-1,4-dihydro-4-fluorophenyl)-6-fluoro-1,4-dihydro-4-fluorophenyl$ 

oxo-1,8-naphthyridine-3-carboxylic acid mesylate

## 1. PHYSICAL AND CHEMICAL PROPERTIES

 $C_{20}H_{15}F_3N_4O_3.CH_3SO_3H$ **Batch Molecular Formula:** 

**Batch Molecular Weight:** 512.46 **Physical Appearance:** White solid

water to 50 mM Solubility:

DMSO to 100 mM

Storage: Desiccate at RT

**Batch Molecular Structure:** 

## 2. ANALYTICAL DATA

**HPLC**: Shows 99% purity

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

Microanalysis: Carbon Hydrogen Nitrogen

> Theoretical 49.22 3.74 10.93 Found 49.25 3.77 10.95

Tel: +44 (0)1235 529449 www.tocris.com/distributors Tel:+1 612 379 2956



# **Product Information**

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oxo-1,8-naphthyridine-3-carboxylic acid mesylate

#### **Description:**

Trovafloxacin mesylate is a fluoroquinolone antibiotic. Inhibits bacterial DNA topoisomerase IV and DNA gyrase and forms a stable quinolone-DNA complex with these enzymes which reversibly inhibits DNA synthesis. Displays potent activity against gram-positive and gram-negative bacteria. Increases the production of mitochondrial NO in immortalized hepatocytes; also increases mitochondrial  $Ca^{2+}$ . Inhibits Panx-1 ( $IC_{50} \sim 4\mu M$ ).

# **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>20</sub>H<sub>15</sub>F<sub>3</sub>N<sub>4</sub>O<sub>3</sub>.CH<sub>3</sub>SO<sub>3</sub>H

Batch Molecular Weight: 512.46 Physical Appearance: White solid

Minimum Purity: ≥99%

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

Storage: Desiccate at RT

# Solubility & Usage Info:

water to 50 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°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.

#### **Licensing Information:**

Sold for research purposes under agreement from Pfizer Inc.

#### References:

Poon et al (2014) Unexpected link between an antibiotic, pannexin channels and apoptosis. Nature 507 329. PMID: 24646995.

**Gootz** *et al* (1996) Activity of the new fluoroquinolone trovafloxacin (CP-99,219) against DNA gyrase and topoisomerase IV mutants of *Streptococcus pneumoniae* selected in vitro. Antimicrob.Agents Chemother. *40* 2691. PMID: 9124824.

Neu and Chin (1994) In vitro activity of the new fluoroquinolone CP-99,219. Antimicrob. Agents Chemother. 38 2615. PMID: 7872757.