

# **Certificate of Analysis**

# www.tocris.com

### Product Name: CSN5i-3

## Catalog No.: 7089 Batch No.: 1

CAS Number: 2375740-98-8

IUPAC Name:

Storage:

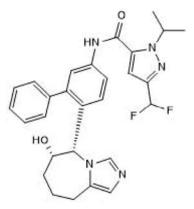
3-(Difluoromethyl)-N-(6-((5S,6S)-6-hydroxy-6,7,8,9-tetrahydro-5H-imidazo[1,5-a]azepin-5-yl)-[1,10-biphenyl]-3-yl)-1isopropyl-1H-pyrazole-5-carboxamide

# 1. PHYSICAL AND CHEMICAL PROPERTIES

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

**Batch Molecular Structure:** 

 $C_{28}H_{29}F_2N_5O_2.1/_2H_2O$ 514.58 White solid DMSO to 100 mM Store at -20°C



# 2. ANALYTICAL DATA

HPLC: Chiral HPLC: <sup>1</sup>H NMR: Mass Spectrum: Microanalysis: Shows 99.9% purity Shows 99.9% purity Consistent with structure Consistent with structure Carbon Hydrogen Nitrogen

| Theoretical | 65.36 | 5.88 | 13.61 |
|-------------|-------|------|-------|
| Found       | 64.99 | 5.5  | 13.47 |

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IUPAC Name:

2 (Difluoromothy)

3-(Difluoromethyl)-N-(6-((5S,6S)-6-hydroxy-6,7,8,9-tetrahydro-5H-imidazo[1,5-a]azepin-5-yl)-[1,10-biphenyl]-3-yl)-1isopropyl-1H-pyrazole-5-carboxamide

#### **Description:**

CSN5i-3 is a potent and selective CSN5 (COP9 signalosome) inhibitor. It inhibits deneddylation of NEDD8-modifed CRLs ( $IC_{50}$  = 5.8 nM), keeping them in the neddylated state, and leading to inactivation of a subset of CRLs by inducing degradation of their substrate receptor module (SRM). In A2780 ovarian cancer cells, CSN5i-3 down-regulates the expression of COPS5 and arrest cells at S-phase. In HUVECs in vitro and in zebrafish embryos in vivo, CSN5i-3 induces endothelial barrier disruption and increases macromolecule leakage by increasing the expression and activity of RhoGTPases. CSN5i-3 also inhibits the growth of lymphoma cell xenografts in ... Please see product specific page on www.tocris.com for full description.

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

Batch Molecular Formula:  $C_{28}H_{29}F_2N_5O_2$ .<sup>1</sup>/<sub>2</sub> $H_2O$ Batch Molecular Weight: 514.58 Physical Appearance: White solid

Minimum Purity: ≥98%

**Batch Molecular Structure:** 

Storage: Store at -20°C

#### Solubility & Usage Info:

DMSO to 100 mM

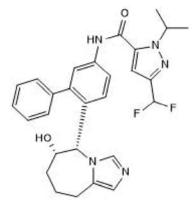
#### **Stability and Solubility Advice:**

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).

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:**

**Majolée** *et al* (2019) CSN5 inhibition triggers inflammatory signaling and Rho/ROCK-dependent loss of endothelial integrity. Sci.Rep. **9** 9131. PMID: 31148579.

**Zhange** *et al* (2017) COPS5 inhibition arrests the proliferation and growth of serous ovarian cancer cells via the elevation of p27 level. Biochem.Biophys.Res.Commun. **493** 85. PMID: 28919423.

Schlierf (2016) Targeted inhibition of the COP9 signalosome for treatment of cancer. Nat Commun. 7 13166. PMID: 27774986.

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