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# Certificate of Analysis

Catalog No.: 5148

## www.tocris.com

Print Date: Sep 3rd 2024

Batch No.: 6

## Product Name: Wnt-C59

CAS Number: 1243243-89-1 IUPAC Name: 4-(2-Methyl-4-

4-(2-Methyl-4-pyridinyl)-N-[4-(3-pyridinyl)phenyl]benzeneacetamide

## 1. PHYSICAL AND CHEMICAL PROPERTIES

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

**Batch Molecular Structure:** 

C<sub>25</sub>H<sub>21</sub>N<sub>3</sub>O.¼H<sub>2</sub>O 383.95 Off White solid DMSO to 20 mM ethanol to 20 mM Store at -20°C

## 2. ANALYTICAL DATA

Storage:

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

Shows 99.2% purity Consistent with structure Consistent with structure

	Carbon Hydrogen Nitrogen				
Theoretical	78.2	5.64	10.94		
Found	77.82	5.32	10.69		

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

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## Product Name: Wnt-C59

CAS Number: 1243243-89-1

4-(2-Methyl-4-pyridinyl)-N-[4-(3-pyridinyl)phenyl]benzeneacetamide

#### **Description:**

**IUPAC Name:** 

Wnt-C59 is a highly potent inhibitor of the MBOAT (membranebound O-acyltranferase) family member, Porcupine (PORCN) (IC<sub>50</sub> = 74 pM), that mediates WNT palmitoylation and secretion. Wnt-C59 potently inhibits the processing of both canonical (1, 2, 3a, 6, 7b, 8a, 9a, 9b, 10) and non-canonical (4, 5a, 11, 16) Wnt subtypes. Wnt-C59 blocks progression of mammary tumors in MMTV-WNT1 transgenic mice and downregulates Wnt/β-catenin target genes. Wnt-C59-treated tumors show a decrease in β-catenin, CyclinD1 and c-Myc. Wnt-C59 induces cardiomyocyte differentiation from human iPSCs following culture with CHIR 99021 (Cat. No. 4423). Wnt-C59 eff... Please see product specific page on www.tocris.com for full description.

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

Batch Molecular Formula: C<sub>25</sub>H<sub>21</sub>N<sub>3</sub>O.¼H<sub>2</sub>O Batch Molecular Weight: 383.95 Physical Appearance: Off White solid

Minimum Purity: ≥99%

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

#### References:

**Jiang** *et al* (2021) Generation of pancreatic progenitors from human pluripotent stem cells by small molecules. Stem Cell Rep. **16** 2395. PMID: 34450037.

**Motono** *et al* (2016) WNT-C59, a small-molecule WNT inhibitor, efficiently induces anterior cortex that includes cortical motor neurons from human pluripotent stem cells. Stem Cells Transl.Med. **5** 552. PMID: 26941358.

Burridge et al (2014) Chemically defined generation of human cardiomyocytes. Nat.Methods 11 855. PMID: 24930130.

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Storage: Store at -20°C

### Solubility & Usage Info:

DMSO to 20 mM ethanol to 20 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.