

**Product Name:** PIK 90

**Catalog No.:** 7902

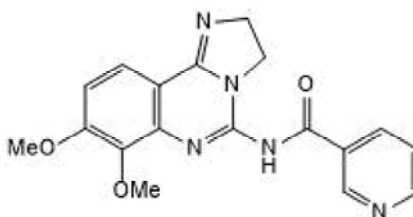
**Batch No.:** 1

CAS Number: 677338-12-4

IUPAC Name: *N*-(2,3-Dihydro-7,8-dimethoxyimidazo[1,2-*c*]quinazolin-5-yl)-3-pyridinecarboxamide

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>18</sub>H<sub>17</sub>N<sub>5</sub>O<sub>3</sub>  
**Batch Molecular Weight:** 351.36  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 10 mM with gentle warming  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 99.6% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	61.53	4.88	19.93
Found	61.55	4.78	19.86

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

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**1**

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**Description:**

PIK 90 is a potent inhibitor of PI 3-K  $\alpha/\gamma/\delta$  kinases ( $IC_{50}$  = 11, 18, 47, 58 and 64 nM against p110 $\alpha$ , p110 $\gamma$ , PI 3-KC2 $\alpha$ , p110 $\delta$  and PI 3-KC2 $\alpha$ , respectively) as well as PIKKs ( $IC_{50}$  = 13 nM against DNA-PK). It inhibits the fMLP-stimulated phosphorylation of Akt and impairs polarity and chemotaxis in dHL60 cells. It suppresses insulin-stimulated phosphorylation of Akt and rpS6 in 3T3-L1 adipocytes and L6 myotubes in vitro and prevents insulin-induced blood glucose reduction in mice in vivo. PIK 90 can be used in combination with other small molecules and proteins for mesendoderm induction in protocols to dif... Please see product specific page on www.tocris.com for full description.

**Physical and Chemical Properties:**

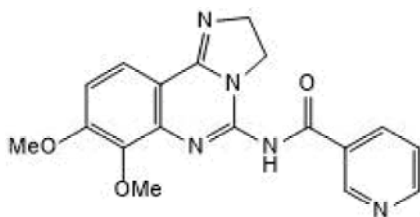
Batch Molecular Formula: C<sub>18</sub>H<sub>17</sub>N<sub>5</sub>O<sub>3</sub>

Batch Molecular Weight: 351.36

Physical Appearance: White solid

**Minimum Purity:**  $\geq$ 98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 10 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:**

**Kishimoto *et al* (2022)** Directed differentiation of human pluripotent stem cells into diverse organ-specific mesenchyme of the digestive and respiratory systems. *Nat.Protoc.* **17** 2699. PMID: 35978039.

**Fan *et al* (2006)** A dual PI3 kinase/mTOR inhibitor reveals emergent efficacy in glioma. *Cancer cell* **9** 341. PMID: 16697955.

**Keymeulen *et al* (2006)** To stabilize neutrophil polarity, PIP3 and Cdc42 augment RhoA activity at the back as well as signals at the front. *J.Cell Biol.* **174** 437. PMID: 16864657.

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