

# Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

Weitere Information auf den folgenden Seiten! See the following pages for more information!



Lieferung & Zahlungsart siehe unsere Liefer- und Versandbedingungen

# Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

## SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien T. +43(0)1 489 3961-0 F. +43(0)1 489 3961-7 <u>mail@szabo-scandic.com</u> www.szabo-scandic.com

# Product Information



### **PIK-90**

Item No. 10010749

CAS Registry No.: Formal Name:	677338-12-4 N-(2,3-dihydro-7,8- dimethoxyimidazo[1,2-c]quinazolin-5- yl)-3-pyridinecarboxamide	
Synonym:	PIK-85	
MF:	$C_{18}H_{17}N_5O_3$	
FW:	351.4	
Purity:	≥98%	0 0
Stability:	≥2 years at -20°C	
Supplied as:	A crystalline solid	
UV/Vis.:	$\lambda_{max}$ : 229, 276 nm	

#### Laboratory Procedures

For long term storage, we suggest that PIK-90 be stored as supplied at -20°C. It should be stable for at least two years. PIK-90 is supplied as a crystalline solid. A stock solution may be made by dissolving the PIK-90 in the solvent of choice. PIK-90 is soluble in DMSO, which should be purged with an inert gas. The solubility of PIK-90 in DMSO is approximately 0.5 mg/ml.

PIK-90 is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

PIK-90 is a potent and cell permeable phosphoinositide 3-kinase (PI3K) inhibitor (IC<sub>50</sub> = 11, 350, 18, and 58 nM for p110 subunit isoforms  $\alpha$ ,  $\beta$ ,  $\gamma$ , and  $\delta$ , respectively).<sup>1</sup> Through this action, PIK-90 reduces chemotaxis and induces apoptosis in chronic lymphocytic leukemia B cells.<sup>1</sup> It also blocks proliferation of glioma cells in vitro.<sup>2</sup> By inhibiting P110α, PIK-90 blocks insulin-stimulated phosphorylation of Akt in L1 adipocytes and L6 myotubes, preventing activation of the mTORC1 pathway.<sup>3</sup>

#### References

- 1. Niedermeier, M., Hennessy, B.T., Knight, Z.A., et al. Isoform-selective phosphoinositide 3'-kinase inhibitors inhibit CXCR4 signaling and overcome stromal cell-mediated drug resistance in chronic lymphocytic leukemia: A novel therapeutic approach. Blood 113(22), 5549-5557 (2009).
- 2. Fan, Q.-W., Knight, Z.A., Goldenberg, D.D., et al. A dual PI3 kinase/mTOR inhibitor reveals emergent efficacy in glioma. Cancer Cell 9, 341-349 (2006).
- Knight, Z.A., Gonzalez, B., Feldman, M.E., et al. A pharmacological map of the PI3-K family defines a role for p110α 3. in insulin signaling. Cell 125, 733-747 (2006).

#### **Related Products**

For a list of related products please visit: www.caymanchem.com/catalog/10010749

#### WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will meet our specifications

purpose, suitability and merchantability, which extends beyond the description of use chemicals network square network n

#### **Cayman Chemical**

#### **Mailing address**

1180 E. Ellsworth Road Ann Arbor, MI 48108 USA

Phone (800) 364-9897 (734) 971-3335

Fax (734) 971-3640

#### E-Mail

custserv@caymanchem.com

#### Web

www.caymanchem.com