

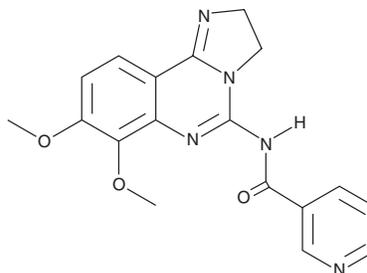
PRODUCT INFORMATION



PIK-90

Item No. 10010749

CAS Registry No.: 677338-12-4
Formal Name: N-(2,3-dihydro-7,8-dimethoxyimidazo[1,2-c]quinazolin-5-yl)-3-pyridinecarboxamide
Synonym: PIK-85
MF: C₁₈H₁₇N₅O₃
FW: 351.4
Purity: ≥98%
UV/Vis.: λ_{max}: 229, 276 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

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.

Description

PIK-90 is a potent and cell permeable phosphoinositide 3-kinase (PI3K) inhibitor (IC₅₀ = 11, 350, 18, and 58 nM for p110 subunit isoforms α, β, γ, and δ, respectively).¹ Through this action, PIK-90 reduces chemotaxis and induces apoptosis in chronic lymphocytic leukemia B cells.¹ It also blocks proliferation of glioma cells in vitro.² By inhibiting P110α, PIK-90 blocks insulin-stimulated phosphorylation of Akt in L1 adipocytes and L6 myotubes, preventing activation of the mTORC1 pathway.³

Reference

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).
3. Knight, Z.A., Gonzalez, B., Feldman, M.E., *et al.* A pharmacological map of the PI3-K family defines a role for p110α in insulin signaling. *Cell* **125**, 733-747 (2006).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. 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

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