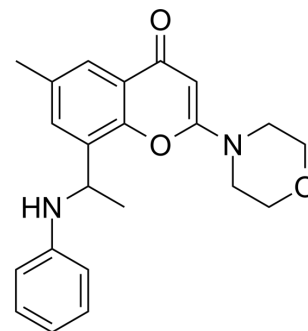


PIK-108

Cat. No.:	HY-111184		
CAS No.:	901398-68-3		
Molecular Formula:	C ₂₂ H ₂₄ N ₂ O ₃		
Molecular Weight:	364.44		
Target:	PI3K		
Pathway:	PI3K/Akt/mTOR		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (137.20 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.7439 mL	13.7197 mL	27.4394 mL
	5 mM	0.5488 mL	2.7439 mL	5.4879 mL
	10 mM	0.2744 mL	1.3720 mL	2.7439 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.08 mg/mL (5.71 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (5.71 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (5.71 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

PIK-108 is a non-ATP competitive, allosteric p110β/p110δ selective inhibitor^[1].

In Vitro

PIK-108 (0.1-10 μM; 1 hour) blocks phosphorylation of PKB/Akt^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Western Blot Analysis^[1]

Cell Line:

Glioma cell lines expressing wild-type PTEN

Concentration:	0.1, 0.5, 1, 4, and 10 μ M
Incubation Time:	1 hour
Result:	Showed variable inhibition of PKB/Akt phosphorylation but exhibited a trend toward reducing PKB/Akt phosphorylation more effectively in mutant PTEN-expressing cell lines than in wild-type PTEN-expressing cell lines.

REFERENCES

- [1]. Zachary A Knight, et al. A pharmacological map of the PI3-K family defines a role for p110 α in insulin signaling. *Cell*. 2006 May 19;125(4):733-47.
- [2]. Jack S Chen, et al. Characterization of structurally distinct, isoform-selective phosphoinositide 3'-kinase inhibitors in combination with radiation in the treatment of glioblastoma. *Mol Cancer Ther*. 2008 Apr;7(4):841-50.

Caution: Product has not been fully validated for medical applications. For research use only.

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