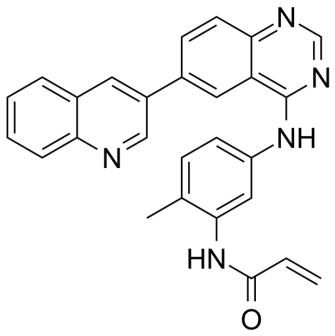
PI3Kδ-IN-11

Cat. No.:	HY-143472
CAS No.:	2413257-51-7
Molecular Formula:	$C_{27}H_{21}N_5O$
Molecular Weight:	431.49
Target:	PI3K; Akt; Apoptosis
Pathway:	PI3K/Akt/mTOR; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

PI3Kδ-IN-11 is a highly potent and selective PI3Kδ inhibitor with IC_{50} value of 27.5 nM. PI3Kδ-IN-11 dose-dependently blocks the activity of PI3K/Akt pathway. PI3Kδ-IN-11 can be used for researching B or T cell-related malignancies[1].

IC_{50} & Target

PI3Kδ
27.5 nM (IC_{50})

In Vitro

PI3Kδ-IN-11 (compound 15c) (0-10 μM; 48 hours) inhibits Raji and Ramos with IC_{50}s of 8.5 μM and 5.4 μM, respectively[1].
PI3Kδ-IN-11 (0.2-15 μM; 0-48 hours) dampens the proliferation of Raji cells in a dose- and time-dependent manner[1].
PI3Kδ-IN-11 (5 μM; 24 hours) triggers 10.78% apoptosis of cells[1].
PI3Kδ-IN-11 (1-1000 nM; 24 hours) dose-dependently reduces the phosphorylation of Akt (S473)[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay

Cell Line:	Raji and Ramos[1]
Concentration:	0-10 μM
Incubation Time:	48 hours
Result:	Inhibited Raji and Ramos with IC_{50}s of 8.5 μM and 5.4 μM, respectively.

Cell Proliferation Assay

Cell Line:	Raji[1]
Concentration:	0.2, 1, 4, 8, 10 and 15 μM
Incubation Time:	0, 12, 24, 36, 48 hours
Result:	Dampened the proliferation of Raji cells in a dose- and time-dependent manner.

Apoptosis Analysis

Cell Line:	Raji[1]

Concentration:	5 μM
Incubation Time:	24 hours
Result:	Triggered 10.78% apoptosis of cells.

Western Blot Analysis

Cell Line:	Raji[1]
Concentration:	1, 10, 100, 500 and 1000 nM
Incubation Time:	24 hours
Result:	Dose-dependently reduced the phosphorylation of Akt (S473), illustrating that the activity of PI3K/Akt pathway was efficiently blocked.

REFERENCES

[1]. Teng Y, Li X, Ren S, et al. Discovery of novel quinazoline derivatives as potent PI3Kδ inhibitors with high selectivity. Eur J Med Chem. 2020;208:112865.

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