ChoKα inhibitor-3

Cat. No.: HY-152191

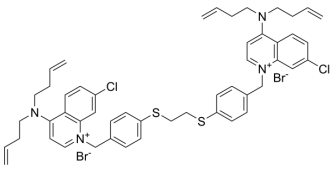
Molecular Formula: $C_{50}H_{54}Br_2Cl_2N_4S_2$

Molecular Weight: 1005.83

Target: Apoptosis

Pathway: Apoptosis

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

ChoKα inhibitor-3 is a sulphur-containing choline kinase inhibitor. ChoKα inhibitor-3 can inhibit HChoK α1 with an IC_{50} value of 0.66 μM. ChoKα inhibitor-3 also can induce apoptosis. ChoKα inhibitor-3 can be used for the research of cancer[1].

IC_{50} & Target

IC50: 0.66 μM (HChoK α1); 0.53 μM (A549); 0.26 μM (HeLa); 3.0 μM (HT-29); 1.34 μM (MCF7)[1]

In Vitro

ChoKα inhibitor-3 (PL 48) has HChoK α1 inhibition activity with an IC_{50} value of 0.66 μM[1].

ChoKα inhibitor-3 (1.46 μM; 72 h) can inhibit cell proliferation for A549, HeLa, HT-29 and MCF7 cells with IC_{50} values of 0.53 μM, 0.26 μM, 3.0 μM and1.34 μM, respectively[1].

ChoKα inhibitor-3 (1, 5 μM; 48, 72 h) induces apoptosis in cancer cells through the mitochondrial pathway[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	HT29, A549, HeLa, HT-29 and MCF7 cells
Concentration:	1.46 μM
Incubation Time:	72 h
Result:	Had excellent growth inhibitory property.

Apoptosis Analysis[1]

Cell Line:	A549 and HeLa cells
Concentration:	1, 5 μM
Incubation Time:	48, 72 h
Result:	Induced a stronger mitochondrial depolarization in HeLa cells at early time-point treatment (24 h).

Western Blot Analysis[1]

Cell Line:	HeLa and NHA cells

Concentration:	5 μM
Incubation Time:	48 h
Result:	Significantly reduced the expression of the anti-apoptotic protein MCL-1.

REFERENCES

[1]. Pilar M Luque-Navarro, et al. New bioisosteric sulphur-containing choline kinase inhibiPilar M Luque-Navarro, et al. New bioisosteric sulphur-containing choline kinase inhibitors with a tracked mode of action. Eur J Med Chem. 2023 Jan 15;246:115003.tors with a tracked mode of action. Eur J Med Chem. 2023 Jan 15;246:115003.

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