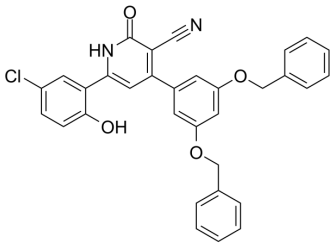
LLP-3

Cat. No.:	HY-125964
CAS No.:	1453835-43-2
Molecular Formula:	$C_{32}H_{23}ClN_2O_4$
Molecular Weight:	534.99
Target:	Survivin
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

LLP-3 is a potent Survivin inhibitor that disrupts the Survivin-Ran interaction in cancer cells. LLP-3 can be used in the research of Glioblastoma multiforme (GBM)[1].

IC_{50} & Target

Survivin[1]

In Vitro

LLP-3 (20 μM, 24 h) impaires the binding of Survivin to Smac/DIABLO (proapoptotic protein), without affecting the interaction of Survivin with other chromosomal passenger complex (CPC) proteins[1].
LLP-3 (20 μM, 24 h) decreases the Survivin-Ran interaction in U87 cells[1].
LLP-3 (20 μM, 24 h) arrests cell in G0-G1 phase and subsequent tumor cell death[1].
LLP-3 (20 μM, 24 h) triggers caspase-dependent apoptosis in HT1080 cells[1].
LLP-3 (0-100 μM, 72 h) inhibits tumor cells survival by p53-mediated inhibition[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	U87E6, U87MG cell
Concentration:	0-100 μM
Incubation Time:	72 h
Result:	Inhibited tumor cells survival with IC_{50} values of 13.6 μM (U87E6) and 38.1 μM (U87MG).

Cell Cycle Analysis[1]

Cell Line:	U87 cells
Concentration:	20 μM
Incubation Time:	24 h
Result:	Reduced the proportions of cells in the S and G2-M phases (from 9% to 5%, and from 25% to 17%, respectively). Increased G0-G1 cell population (from 60% to 74%).

Immunofluorescence[1]

Cell Line:	U87, HT1080 cells
Concentration:	40 μM
Incubation Time:	24 h
Result:	Weakened the colocalization of TPX2 with the acetylated α-tubulin.

In Vivo

LLP-3 (intraperitoneal injection, 25 mg/kg, for 10 days) prolongs survival of GBM sphere-derived tumor mice[1].

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

Animal Model:	GBM sphere-derived tumor models (GBM83 and 1600)[1]
Dosage:	25 mg/kg
Administration:	Intraperitoneal injection, for 10 days (days 10–14 and days 17–21)
Result:	Prolonged the survival of tumor-burden mice without exhibiting any lethality of mice until day 35.

REFERENCES

[1]. Hacer Guvenc, et al. Impairment of glioma stem cell survival and growth by a novel inhibitor for Survivin-Ran protein complex. Clin Cancer Res. 2013 Feb 1;19(3):631-42.

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