LQZ-7I

Cat. No.: HY-136538

CAS No.: 195822-23-2

Molecular Formula: $C_{20}H_{14}F_2N_4$

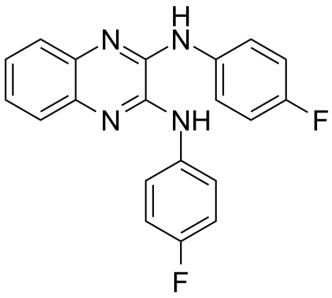
Molecular Weight: 348.35

Target: Survivin

Pathway: Apoptosis

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (358.83 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.8707 mL	14.3534 mL	28.7068 mL
	5 mM	0.5741 mL	2.8707 mL	5.7414 mL
	10 mM	0.2871 mL	1.4353 mL	2.8707 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.97 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

LQZ-7I is a survivin-targeting inhibitor. LQZ-7I inhibits survivin dimerization. LQZ-7I orally effectively inhibits xenograft tumor growth and induces survivin loss in tumors[1].

IC_{50} & Target

Survivin[1]

In Vitro

LQZ-7I has improved cytotoxicity with IC_{50}s of 3.1 μM against C4-2 cells and 4.8 μM against PC-3 cells compared with the parent compound LQZ-7[1].

LQZ-7I (10 μM; 0-6 hours) treatment reduces the expression of survivin. However, LQZ-7I does not reduce the expression of XIAP, CIAP1, and CIAP2. LQZ-7I may be selective to its intended target survivin[1].

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

Western Blot Analysis[1]

Cell Line:	PC-3 or C4-2 cells
Concentration:	10 μM
Incubation Time:	0-6 hours
Result:	Reduced the expression of survivin.

In Vivo

LQZ-7I (100 mg/kg; oral gavage every other day for a total of ten treatments) significantly suppresses tumor growth without any notable adverse effect on the mice[1].

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

Animal Model:	6-week old male NSG mice[1]
Dosage:	100 mg/kg; 200 μL vehicle (90% corn oil/10% DMSO)
Administration:	Oral gavage every other day for a total of ten treatments
Result:	Significantly suppressed tumor growth without any notable adverse effect on the mice as indicated by lacking changes in body weight and in wet weight of major organs at the end of the study.

REFERENCES

[1]. Robert Peery,et al. Synthesis and Identification of a Novel Lead Targeting Survivin Dimerization for Proteasome-Dependent Degradation. J Med Chem. 2020 Jun 9.

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