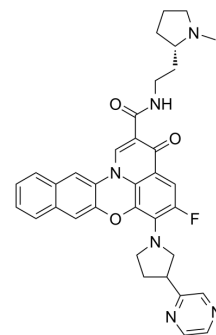


Quarfloxin

Cat. No.:	HY-14776		
CAS No.:	865311-47-3		
Molecular Formula:	C ₃₅ H ₃₃ FN ₆ O ₃		
Molecular Weight:	604.67		
Target:	DNA/RNA Synthesis		
Pathway:	Cell Cycle/DNA Damage		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 5 mg/mL (8.27 mM; ultrasonic and adjust pH to 3 with HCl)
 DMSO : 1 mg/mL (1.65 mM; ultrasonic and warming and heat to 60°C)
 H₂O : 1 mg/mL (1.65 mM; ultrasonic and adjust pH to 5 with 0.1 M HCL)

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1 mg	5 mg	10 mg
	1 mM		1.6538 mL	8.2690 mL	16.5379 mL
	5 mM		0.3308 mL	1.6538 mL	3.3076 mL
	10 mM		---	---	---

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

BIOLOGICAL ACTIVITY

Description

Quarfloxin (CX-3543), a fluoroquinolone derivative with antineoplastic activity, targets and inhibits RNA pol I activity, with IC₅₀ values in the nanomolar range in neuroblastoma cells. Quarfloxin disrupts the interaction between the nucleolin protein and a G-quadruplex DNA structure in the ribosomal DNA (rDNA) template^[1].

IC₅₀ & Target

RNA pol I^[1].

In Vitro

Quarfloxin (CX-3543) effectively inhibits the growth of neuroblastoma cells in vitro. MNA (or high c-Myc) and wt-TP53 cell lines are found to be more sensitive to Quarfloxin. Quarfloxin and induces DNA damage, p53 signaling, cell death, and cell cycle arrest in neuroblastoma cell lines^[1].

Solution *in vitro*: Quarfloxin is suspended in DMSO to a stock of 10 mM^[1].

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

CUSTOMER VALIDATION

- Cancer Res. 2022 Jan 12;canres.1707.2021.
- Biochimie. 2022 Apr 20;199:81-91.

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REFERENCES

[1]. Hald ØH, et al. Inhibitors of ribosome biogenesis repress the growth of MYCN-amplified neuroblastoma. Oncogene. 2018 Dec 12.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA