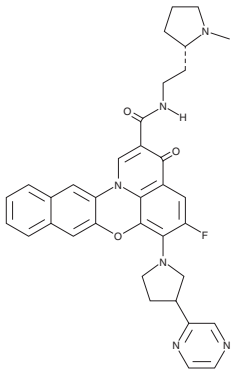
PRODUCT INFORMATION

Quarfloxin

Item No. 36552

CAS Registry No.:	865311-47-3
Formal Name:	5-fluoro-N-[2-[(2S)-1-methyl-2-pyrrolidinyl]ethyl]-3-oxo-6-[3-(2-pyrazinyl)-1-pyrrolidinyl]-3H-benzo[b]pyrido[3,2,1-kl]phenoxazine-2-carboxamide
Synonyms:	CX-3543, Itarnafloxin, Quarfloxacin
MF:	$C_{35}H_{33}FN_6O_3$
FW:	604.7
Purity:	≥98%
UV/Vis.:	λ_{max}: 218, 319 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Quarfloxin is supplied as a solid. A stock solution may be made by dissolving the quarfloxin in the solvent of choice, which should be purged with an inert gas. Quarfloxin is soluble in DMSO.

Description

Quarfloxin is an inhibitor of RNA polymerase I-mediated transcription.[1] It binds to G-quadruplex DNA and inhibits the interaction between ribosomal DNA G-quadruplexes and nucleolin, a nucleolar protein required for RNA polymerase I-mediated transcription. Quarfloxin (10 µM) induces nucleolin mislocalization from the nucleoli to the nucleoplasm in A549 cells. It induces apoptosis in A549 and HL-60 cells when used at a concentration of 5 µM. Quarfloxin (5 mg/kg) reduces tumor growth in MDA-MB-231 breast and MiaPaCa-2 pancreatic cancer mouse xenograft models.

Reference

1. Drygin, D., Siddiqui-Jain, A., O'Brien, S., *et al*. Anticancer activity of CX-3543: A direct inhibitor of rRNA biogenesis. *Cancer Res.* **69(19)**, 7653-7661 (2009).

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