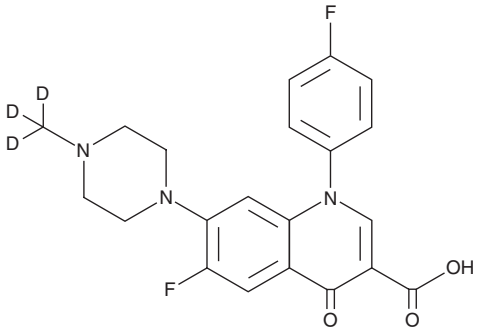
PRODUCT INFORMATION

Difloxacin-d_3

Item No. 27617

CAS Registry No.:	1173147-93-7
Formal Name:	6-fluoro-1-(4-fluorophenyl)-7-(4-(methyl-d_3)piperazin-1-yl)-4-oxo-1,4-dihydroquinoline-3-carboxylic acid
MF:	$C_{21}H_{16}D_3F_2N_3O_3$
FW:	402.4
Chemical Purity:	≥95% (Difloxacin)
Deuterium Incorporation:	≥99% deuterated forms (d_1-d_3); ≤1% d_0
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

Difloxacin-d_3 is intended for use as an internal standard for the quantification of difloxacin by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Difloxacin-d_3 is supplied as a solid. A stock solution may be made by dissolving the difloxacin-d_3 in the solvent of choice, which should be purged with an inert gas. Difloxacin-d_3 is soluble in ethanol and chloroform.

Description

Difloxacin is a fluoroquinolone antibiotic.[1] It is active against isolates of anaerobic bacteria, including *B. fragilis*, as well as *Fusobacterium* and *Actinomyces* species with MIC values ranging from ≤0.125 to 8 µg/ml. It eliminates *E. coli* and *B. fragilis* infection in a rat intra-abdominal abscess model when administered at a dose of 40 mg/kg three times per day.[2]

Reference

1. Bansal, M.B. and Thadepalli, H. Activity of difloxacin (A-56619) and A-56620 against clinical anaerobic bacteria *in vitro*. *Antimicrob.Agents Chemother.* **31(4)**, 619-621 (1987).
2. Thadepalli, H., Gollapudi, S.V., and Chuah, S.K. Therapeutic evaluation of difloxacin (A-56619) and A-56620 for experimentally induced *Bacteroides fragilis*-associated intra-abdominal abscess. *Antimicrob. Agents Chemother.* **30(4)**, 574-576 (1986).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM