1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( \text{C}_{19}\text{H}_{22}\text{FN}_3\text{O}_4 \cdot \frac{1}{4}\text{H}_2\text{O} \)

Batch Molecular Weight: 397.91

Physical Appearance: White solid

Solubility: DMSO to 10 mM with gentle warming

Storage: Store at +4°C

2. ANALYTICAL DATA

HPLC: Shows 98.9% purity

\(^1\text{H NMR:} \) Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

\[
\begin{array}{ccc}
\text{Carbon} & \text{Hydrogen} & \text{Nitrogen} \\
\text{Theoretical} & 57.35 & 6.21 & 10.56 \\
\text{Found} & 57.47 & 6.05 & 10.63 \\
\end{array}
\]
Product Name: Gatifloxacin
Catalog No.: 3849
Batch No.: 1

CAS Number: 112811-59-3
IUPAC Name: 1-Cyclopropyl-6-fluoro-1,4-dihydro-8-methoxy-7-(3-methyl-1-piperazinyl)-4-oxo-3-quinolinecarboxylic acid

Description:
Fluoroquinolone antibiotic. Inhibits bacterial type II topoisomerases (IC₅₀ values are 0.109 and 13.8 μg/ml for E.coli DNA gyrase and S.aureus topoisomerase IV respectively). Displays potent activity against gram-positive and gram-negative bacteria. Stimulates short-term self-renewal in both human and mouse embryonic stem cells in vitro.

Physical and Chemical Properties:
Batch Molecular Formula: C₂₉H₂₂FN₂O₄.1¼H₂O
Batch Molecular Weight: 397.91
Physical Appearance: White solid
Minimum Purity: >98%

Storage: Store at +4°C
Solubility & Usage Info:
DMSO to 10 mM with gentle warming

Stability and Solubility Advice:
Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).
Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:
SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.
SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References: