# **PRODUCT** INFORMATION



## Zoliflodacin

Item No. 34203

| CAS Registry No.: | 1620458-09-4   |          |
|-------------------|--|----------|
| Formal Name:      | (2R,4S,4aS)-11-fluoro-1,2,4,4a-                                |          |
|                   | tetrahydro-2,4-dimethyl-8-[(4S)-                               |          |
|                   | 4-methyl-2-oxo-3-oxazolidinyl]-                                |          |
|                   | Spiro[isoxazolo[4,5-g][1,4]                                    | F O      |
|                   | oxazino[4,3-a]quinoline-5(6H),5'(2'H)-                         |          |
|                   | pyrimidine]-2',4',6'(1'H,3'H)-trione                           |          |
| Synonyms:         | AZD0914, ETX0914   | N N      |
| MF:               | C <sub>22</sub> H <sub>22</sub> FN <sub>5</sub> O <sub>7</sub> |          |
| FW:               | 487.4  | / ОЩ №-н |
| Purity:           | ≥98%   |          |
| UV/Vis.:          | λ <sub>max</sub> : 250, 316 nm                                 |          |
| Supplied as:      | A solid  | Ó H Ű    |
| Storage:          | -20°C  |          |
| Stability:        | ≥4 years   |          |
|                   |  |          |

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

#### Laboratory Procedures

Zoliflodacin is supplied as a solid. A stock solution may be made by dissolving the zoliflodacin in the solvent of choice, which should be purged with an inert gas. Zoliflodacin is soluble in organic solvents such as ethanol and DMSO. The solubility of zoliflodacin in these solvents is approximately 25 mg/ml.

#### Description

Zoliflodacin is a fluoroquinolone antibiotic.<sup>1</sup> It inhibits the supercoiling activity of bacterial DNA gyrase and topoisomerase IV DNA decatenation.<sup>2</sup> It is active against 250 clinical isolates of N. gonorrhoeae, including extensively drug-resistant (XDR) and multidrug-resistant (MDR) strains, with MIC values ranging from 0.004 to 0.25  $\mu$ g/ml.<sup>1</sup> Zoliflodacin is also active against clinical isolates of methicillin-resistant *S. aureus* (MRSA; MICs = 0.03-0.5 mg/L), as well as 10 clinical isolates each of C. trachomatis and C. pneumoniae  $(MIC_{50}s = 0.125 \text{ and } 0.5 \mu g/ml, respectively}).^{2,3}$ 

#### References

- 1. Jacobsson, S., Golparian, D., Alm, R.A., et al. High in vitro activity of the novel spiropyrimidinetrione AZD0914, a DNA gyrase inhibitor, against multidrug-resistant Neisseria gonorrhoeae isolates suggests a new effective option for oral treatment of gonorrhea. Antimicrob. Agents Chemother. 58(9), 5585-5588 (2014).
- 2. Biedenbach, D.J., Huband, M.D., Hackel, M., et al. In vitro activity of AZD0914, a novel bacterial DNA gyrase/topoisomerase IV inhibitor, against clinically relevant Gram-positive and fastidious Gram-negative pathogens. Antimicrob. Agents Chemother. 59(10), 6053-6063 (2015).
- 3. Kohlhoff, S.A., Huband, M.D., and Hammerschlag, M.R. In vitro activity of AZD0914, a novel DNA gyrase inhibitor, against Chlamydia trachomatis and Chlamydia pneumoniae. Antimicrob. Agents Chemother. 58(12), 7595-7596 (2014).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFFTY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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