

Ciprofloxacin Hydrochloride

Molecular structure



Product Description

Ciprofloxacin hydrochloride (HCl) is a fluoroquinolone antibiotic. It is effective against a wide range of Gram-positive and Gram-negative bacteria, and is well known for its effectiveness against mycoplasma. Ciprofloxacin HCl works by interfering with the bacterial enzyme DNA gyrase, an enzyme necessary for bacterial synthesis, replication, and transcription in both the active and non-active growth phases of the bacterial life cycle.

Mycoplasma contamination may originate from various sources including cell culture medium, serum added to the medium, and tissue used to establish primary cultures. Most commonly, it is passed from individuals who handle the cultures. Mycoplasma is an insidious infection that decreases cellular activity and growth rate, produces membrane alterations, affects amino acid and nucleic acid metabolism, causes chromosome aberrations, and diminishes the quality of resultant data or products. Mycoplasma infections often remain undetected and even with the heaviest contamination, and cultures may appear to grow normally and remain clear. Reports estimate that up to 35% of cultures containing mycoplasma go undetected. The most common method for detecting viable mycoplasma is the Barile and Kern large volume cell culture method. If detected, Ciprofloxacin HCl can provide the end user with an alternative to discarding valuable cell cultures, thus saving valuable time and money. Ciprofloxacin HCl shows minimal decrease in effectiveness even after six days in culture; therefore, regular feeding schedules are not interrupted. Treatment can be discontinued when no signs of reoccurrence are apparent after four consecutive weeks.

Product Specification

Mode of Action:

Interferes with DNA gyrase, an enzyme required in DNA and RNA synthesis, replication, and transcription

Conferred Resistance:

None known

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Spectrum:	Gram (+) and Gram (-) bacteria
Molecular weight:	331.346
Microbiological Potency:	2800 μg/mL
Formula:	C17H18FN3O3
Appearance:	Faintly yellowish to light yellow crystals
Working Concentration:	5-25 μg/mL
Storage and Stability:	Solution: Frozen - 25°C to -15°C Powder: 15°C to 30°C

Ordering information

Cat. No.	Description	Unit Size	Qty/Pk
61-277-RF	Ciprofioxacin Hydrochloride, powder	1 g	1
61-277-RG	Ciprofioxacin Hydrochloride, powder	5 g	1

For Research use only. Not approved for human or veterinary use, for application to humans or animals, or for use in clinical or in vitro procedures.

Support

Life Science Production is a division of Life Science Group Ltd. Life Science Production is <u>ISIA Traceability Certified</u> Life Science Group Ltd is an ISO 9001:2015 Certified company

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