

<b>Product Name:</b>	Sparfloxacin
<b>Product Number:</b>	S005
<b>CAS Number:</b>	110871-86-8
<b>Molecular Formula:</b>	C <sub>19</sub> H <sub>22</sub> F <sub>2</sub> N <sub>4</sub> O <sub>3</sub>
<b>Molecular Weight:</b>	392.40
<b>Form:</b>	Powder
<b>Appearance:</b>	Yellow Crystalline Powder
<b>Source:</b>	Synthetic
<b>Storage Conditions:</b>	≤30°C
<b>Description:</b>	Sparfloxacin is a synthetic fluoroquinolone antibiotic and is sparingly soluble in aqueous solution (0.113 mg/mL).
<b>Mechanism of Action:</b>	Fluoroquinolone antibiotics target bacterial DNA gyrase, an enzyme which reduces DNA strain during replication. Because DNA gyrase is required during DNA replication, subsequent DNA synthesis and ultimately cell division is inhibited.
<b>Spectrum:</b>	Sparfloxacin is a broad spectrum antibiotic targeting a wide range of Gram positive, Gram negative, and <i>Mycoplasma</i> species especially those which cause pneumonia.
<b>Microbiology Applications</b>	<p>Sparfloxacin is commonly used in clinical <i>in vitro</i> microbiological antimicrobial susceptibility tests (panels, discs, and MIC strips) against gram positive, gram negative, and <i>Mycoplasma</i> microbial isolates. Medical microbiologists use AST results to recommend antibiotic treatment options for infected patients. Representative MIC values include:</p> <ul style="list-style-type: none"><li>• <i>Mycoplasma pneumoniae</i> 0.06 µg/mL – 0.12 µg/mL</li><li>• <i>Streptococcus pneumoniae</i> 0.03 µg/mL - 8 µg/mL</li><li>• For a complete list of sparfloxacin MIC values, <a href="#">click here</a>.</li></ul>
<b>References:</b>	<p>Wolfson, John S., and David C. Hooper. "The Fluoroquinolones: Structures, Mechanisms of Action and Resistance, and Spectra of Activity in Vitro." <i>American Society for Microbiology</i> 4th ser. 28 (1985): 581-86.</p>