

<b>Product Name:</b>	Mupirocin
<b>Product Number:</b>	M022
<b>CAS Number:</b>	12650-69-0
<b>Molecular Formula:</b>	C <sub>26</sub> H <sub>44</sub> O <sub>9</sub>
<b>Molecular Weight:</b>	500.62
<b>Form:</b>	Powder
<b>Appearance:</b>	Almost white or off-white powder
<b>Source:</b>	<i>Pseudomonas Fluorescens.</i>
<b>Water Content (Karl Fischer):</b>	≤ 1.0%
<b>pH:</b>	3.5-4.5
<b>Optical Rotation:</b>	-17° to -21°
<b>Storage Conditions:</b>	2-8 °C
<b>Description:</b>	<p>Mupirocin is a carboxylic acid bacteriostatic/bactericidal antibiotic.</p> <p>TOKU-E offers three forms of mupirocin: mupirocin (M022), <u>mupirocin lithium salt (M023)</u>, and <u>mupirocin calcium</u> . Mupirocin is sparingly soluble in aqueous solution at 26.5 µg/mL. Mupirocin lithium is freely soluble at 10 mg/mL.</p>
<b>Mechanism of Action:</b>	Mupirocin inhibits protein synthesis by binding to isoleucyl-tRNA synthetase, an enzyme which conjugates the amino acid isoleucine to its corresponding tRNA.
<b>Spectrum:</b>	Mupirocin is commonly used to target gram positive bacteria especially Methicillin resistant <i>Staphylococcus aureus</i> (MRSA).
<b>Microbiology Applications</b>	<p>Mupirocin is commonly used in clinical <i>in vitro</i> microbiological antimicrobial susceptibility tests (panels, discs, and MIC strips) against gram positive <i>Staphylococcus</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>• Methicillin resistant <i>Staphylococcus aureus</i> 0.25 µg/mL – 0.39 µg/mL</li> <li>• For a complete list of mupirocin MIC values, <a href="#">click here</a>.</li> </ul>
<b>References:</b>	Hatfield, S. M., J. J. Leyden, and M. I. Parenti. "Mupirocin: A Topical Antibiotic with a Unique Structure and Mechanism of Action." <i>PubMed</i> (1987): 761-70. <a href="http://www.ncbi.nlm.nih.gov">Http://www.ncbi.nlm.nih.gov</a> . Web. 5 Aug. 2012.

