

Product Name:	Mupirocin lithium salt
Product Number:	M023
CAS Number:	73346-79-9
Molecular Formula:	C ₂₆ H ₄₃ LiO ₉
Molecular Weight:	506.56 g/mol
Form:	Powder
Appearance:	White Powder
Source:	<i>Pseudomonas Fluorescens</i>
Optical Rotation:	[α] _D -21.0±2.0°, c = 1 in H ₂ O
Storage Conditions:	2-8 °C
Description:	<p>Mupirocin is a carboxylic acid bacteriostatic/bactericidal antibiotic.</p> <p>TOKU-E offers three forms of mupirocin: <u>mupirocin (M022)</u>, mupirocin lithium salt (M023), and mupirocin calcium . Mupirocin is sparingly soluble in aqueous solution at 26.5 µg/mL. Mupirocin lithium is freely soluble at 10 mg/mL.</p>
Mechanism of Action:	Mupirocin inhibits protein synthesis by binding to isoleucyl-tRNA synthetase, an enzyme which conjugates the amino acid isoleucine to its corresponding tRNA.
Spectrum:	Mupirocin is commonly used to target gram positive bacteria especially Methicillin resistant <i>Staphylococcus aureus</i> (MRSA).
Microbiology Applications	<p>Mupirocin lithium salt 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> <p>Methicillin resistant <i>Staphylococcus aureus</i> 0.25 µg/mL – 0.39 µg/mL</p> <p>For a complete list of mupirocin MIC values, click here.</p>
References:	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. Http://www.ncbi.nlm.nih.gov . Web. 5 Aug. 2012.