

Product Name:	Linezolid
Product Number:	L007
CAS Number:	165800-03-3
Molecular Formula:	C ₁₆ H ₂₀ FN ₃ O ₄
Molecular Weight:	337.35
Form:	Powder
Appearance:	White or almost white powder
Source:	Synthetic
Storage Conditions:	Ambient, Protect from light
Description:	Linezolid is an oxazolidinone antibiotic and is effective against Gram positive bacteria including certain strains of methicillin resistant <i>Staphylococcus aureus</i> (MRSA).
Mechanism of Action:	Linezolid inhibits protein synthesis by binding to the 50S ribosomal subunit (23S rRNA) which prevents formation of the 70S initiation complex thus inhibiting mRNA translation. It is also a monoamine oxidase inhibitor displaying nonselective, reversible binding.
Spectrum:	Effective for Gram-positive bacteria including certain strains of MRSA.
References:	<p>Ament PW (2002) Linezolid: Its role in the treatment of Gram-Positive, drug-resistant bacterial infections. Amer. Family Phys. 65(4):663-671</p> <p>Champney WS and Miller M (2002) Linezolid is a specific inhibitor of 50S ribosomal subunit formation in Saphylococcus aureus cells. Curr. Microbiol. 44(5):350-356</p> <p>Garcia-Roca P, Mancilla-Ramirez J, Santos-Segura A, Fernandez-Aviles M, Calderon-Jaimes E (2006) Linezolid diminishes inflammatory cytokine production from human peripheral blood mononuclear cells. 37(1):31-35</p> <p>Shinabarger DL (1997) Mechanism of action of Oxazolidinones: Effects of Linezolid and Eperezolid on translation reactions. Antimicrob. Agents Chemother. 41(10): 2132-2136</p>