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Ceftolozane

National Cancer Institute

Source

National Cancer Institute. *Ceftolozane*. NCI Thesaurus. Code C150024.

A semi-synthetic, broad-spectrum, fifth-generation cephalosporin antibiotic with bactericidal activity against certain Gram-negative and Gram-positive bacteria. Upon administration, ceftolozane binds to and inactivates penicillin-binding proteins (PBPs) located on the inner membrane of the bacterial cell wall. This interferes with the final transpeptidation step required to form peptidoglycan chain cross-links, which are a key component of and provide strength and rigidity to the bacterial cell wall. This inhibits bacterial cell wall synthesis and reduces cell wall stability, which weakens the bacterial cell wall and causes bacterial cell lysis.