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Amdinocillin

National Cancer Institute

Source

National Cancer Institute. *Amdinocillin*. NCI Thesaurus. Code C65229.

A semisynthetic, broad spectrum beta-lactam penicillin with antibacterial activity. Amdinocillin specifically binds to and inactivates penicillin-binding protein 2 (PBP 2) located on the inner membrane of the bacterial cell wall. Inactivation of PBPs interferes with the cross-linkage of peptidoglycan chains necessary for bacterial cell wall strength and rigidity. This interrupts bacterial cell wall synthesis and results in the weakening of the bacterial cell wall and causes cell lysis. Given the fact that most beta-lactam penicillins bind almost exclusively to PBPs 1 and 3, amdinocillin is able to synergize with other penicillins in the treatment against bacterial infections.