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Cephadrine Dihydrate

National Cancer Institute

Source

National Cancer Institute. *Cephadrine Dihydrate*. NCI Thesaurus. Code C47970.

The dihydrate form of cephadrine, a beta-lactam, first-generation cephalosporin antibiotic with bactericidal activity. Cephadrine dihydrate binds to and inactivates penicillin-binding proteins (PBP) located on the inner membrane of the bacterial cell wall. PBPs participate in the terminal stages of assembling the bacterial cell wall, and in reshaping the cell wall during cell division. Inactivation of PBPs interferes with the cross-linkage of peptidoglycan chains necessary for bacterial cell wall strength and rigidity. This results in the weakening of the bacterial cell wall and causes cell lysis.