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# Kanamycin

National Cancer Institute

## Source

National Cancer Institute. *Kanamycin*. NCI Thesaurus. Code C65997.

An aminoglycoside antibiotic with antimicrobial property. Amikacin irreversibly binds to the bacterial 30S ribosomal subunit, specifically in contact with 16S rRNA and S12 protein within the 30S subunit. This leads to interference with translational initiation complex and, misreading of mRNA, thereby hampering protein synthesis and resulting in bactericidal effect. This agent is usually used for treatment of *E. coli*, *Proteus* species (both indole-positive and indole-negative), *E. aerogenes*, *K. pneumoniae*, *S. marcescens*, and *Acinetobacter* species.