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# Tobramycin

National Cancer Institute

## Source

National Cancer Institute. *Tobramycin*. NCI Thesaurus. Code C62082.

An aminoglycoside antibiotic derived from *Streptomyces tenebrarius* with bacteriostatic activity. Following active transport into the cell, tobramycin binds irreversibly to a specific aminoglycoside receptor on the bacterial 30S ribosomal subunit and interferes with the initiation complex between messenger RNA and the 30S subunit, thereby inhibiting initiation of protein synthesis, consequently leading to bacterial cell death. In addition, tobramycin induces misreading of the mRNA template causing incorrect amino acids to be incorporated into the growing polypeptide chain, consequently interfering with protein elongation.