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Doxycycline

National Cancer Institute

Source

National Cancer Institute. *Doxycycline*. NCI Thesaurus. Code C457.

A synthetic, broad-spectrum tetracycline antibiotic exhibiting antimicrobial activity.

Doxycycline binds to the 30S ribosomal subunit, possibly to the 50S ribosomal subunit as well, thereby blocking the binding of aminoacyl-tRNA to the mRNA-ribosome complex.

This leads to an inhibition of protein synthesis. In addition, this agent has exhibited inhibition of collagenase activity.