Mekanisme inhibisi sintesis protein dan dasar molekuler resistensi antibiotik./ Nurtami Soedarsono, Elza Ibrahim Auerkari

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Abstrak

Different mechanisms by antibiotics selectively kill or inhibit growth and proliferation of pathogen bacteria. Some antibiotics work by interfering the process of protein synthesis in bacterial ribosome, the machinery that builds proteins amino acid for the living bacterial cell. This type of antibiotics which inhibit the protein synthesis include streptomycin, chlor amphenicol and tetrasycline which are described in this article. Antibiotic resistencic is a worldwide problem in treating infectious diseases. Multiple factors contribute to the problem, but the most important ones are the prevalence of resistance genes and the excessive or inappropiate antibiotic use. Bacterial resistance to antibiotics may develop from the natural state of the bacterial genome, or the bacteria can acquire resistance genes by mutation or exchange of genes. Bacteria are able to exchange genes by several mechanisms such as conjugation, transduction, transposition and transformation, in which genetic material carieas such as plasmids, bacteriophages or transposons play an important role.