Antybiotyki peptydowe i ich kompleksy z jonami metali = Peptide antibiotics and their complexes with metal ions.

Autorzy

Kamila Stokowa-Sołtys

Rok wydania

2018

Czasopismo

Wiadomości Chemiczne

Numer woluminu

72

Strony

497-522

Kolekcja

Naukowa

Język

Polski

Typ publikacji

Artykuł

Streszczenie

Metal ions are essential for numerous antibiotics. They play a crucial role in the mechanism of action and may be involved in specific interactions with cell membrane or target molecules, such as: proteins and nucleic acids. Due to the fact that complexes usually poses a higher positive charge than free ligands, they might interact more tightly with DNA and RNA molecules. However, complexes may also form during antimicrobial agents application, because a lot of them possess functional groups which can bind metal ions present in physiological fluids. Many recent studies support a hypothesis that drugs may alter the serum metal ions concentration. Moreover, it has been shown that numerous complexes with antibiotics can cause DNA degradation, e.g. bleomycin which form stable complexes with redox metal ions and split the nucleic acids chain via the free radicals mechanism. Therefore, it is widely used in cancer therapy.

Słowa kluczowe

peptide antibiotics, metalloantibiotic, metal ion complexes

antybiotyki peptydowe, metaloantybiotyki, kompleksy jonów metali