

Structural characterization and antimicrobial activity of the Zn(II) complex with P113 (demegen), a derivative of histatin 5.

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Streszczenie

Zinc binding to P113 (or demegen), a 12 amino acid (AKRHHGYKRKFH-NH₂) fragment of histatin 5, was investigated by means of NMR and CD techniques, yielding delineation of the metal binding site and the 3D structure of the complex in water and in DMSO as well. The three His imidazole and the N-terminus nitrogens were found to act as the zinc coordinating atoms. A comparison with the previously reported Cu(II)-P113 complex disclosed that the two structures were rather diverse, in spite of an identical donor set. The two complexes were also tested for their antimicrobial activity *in vitro* against seven bacteria and two yeast strains: a minor activity of both complexes vs that of free ligand was given evidence, suggesting both metal ions may possibly play a negative role *in vivo*.

Adres publiczny

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Strona internetowa wydawcy

<https://www.acs.org/content/acs/en.html>

