



## Impact of metal coordination and pH on the antimicrobial activity of histatin 5 and the products of its hydrolysis

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### Streszczenie

This work focuses on the relationship between the coordination chemistry and antimicrobial activity of Zn(II) and Cu(II) complexes of histatin 5 and the products of its hydrolysis: its N-terminal fragment (histatin 5–8) and C-terminal fragment (histatin 8). Cu(II) coordinates in an albumin-like binding mode and Zn(II) binds to up to 3 His imidazoles. The antimicrobial activity of histatins and their metal complexes (i) strongly depends on pH – they are more active at pH 5.4 than at 7.4; (ii) the complexes and ligands alone are more effective in eradicating Gram-positive bacteria than the Gram-negative ones, and (iii) Zn(II) coordination is able to change the structure of the N-terminal region of histatin 5 (histatin 5–8) and moderately increase all of the studied histatins' antimicrobial potency.

### Adres publiczny

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### Strona internetowa wydawcy

<https://www.rsc.org/>

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