



Uncapping the N-terminus of a ubiquitous His-tag peptide enhances its Cu²⁺ binding affinity.

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Streszczenie

Metal complexes with an N-terminally free and N-terminally acetylated polyhistidine region of *Echis ocellatus* venom, with an interesting His-rich motif present in numerous metal binding proteins from all kingdoms of life (DHDHDHHHHHHPGSSV-NH₂ and Ac-DHDHDHHHHHHPGSSV-NH₂) show the role of the free amino group in the thermodynamic enhancement of Cu²⁺, Ni²⁺ and Zn²⁺ binding. In the studied sequences, Cu²⁺ can be coordinated by different sets of imidazole rings, and a 3–10 helix is detected in close proximity of Cu²⁺ binding sites. The complexes are more stable than those with a typical His6-tag, despite a similar copper(II) coordination mode in both cases.

Adres publiczny

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Strona internetowa wydawcy

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