

The possible role of Gly residues in the prion octarepeat region in the coordination of Cu^{2+} ions.

Autorzy

Marek Łuczkowski

Henryk Kozłowski

Anna Łęgowska

Krzysztof Rolka

Maurizio Remelli

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Spectroscopic and potentiometric data have shown that insertion of tripeptides other than the Gly₃ peptide fragment, Ala₃ or Lys₃, into the prion octarepeat region destabilizes the biologically relevant Cu^{2+} complex with the metal ion bound equatorially through the {N_{imid}, 2N⁻} donor set. The other likely role of the high glycine content could be enforcement of the high flexibility of the N-terminal prion region resulting in the unstructured protein organization. However, the insertion of bulkier amino acid residues does not change the basic coordination mode at physiological pH which involves imidazole nitrogen and two amide nitrogen donors from the third and fourth residues.

Adres publiczny

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Strona internetowa wydawcy

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