

Can chicken and human PrPs possess SOD-like activity after β -cleavage?

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The prion protein is a membrane attached glycoprotein that is involved in binding of divalent copper ions. *In vivo* human and chicken PrPs exhibit SOD-like activity associated with octarepeat and hexarepeat regions, respectively, when bind Cu(II) ions. However, the species of Cu(II)–PrP involved in the Cu(II) center which determines the highest SOD-like activity is still unknown. The data presented here clearly show that the single Cu(II) ion bound to PrP octapeptide repeat region of mammalian prion and hexapeptide repeat region of avian prion via 4 His side-chain imidazoles reveals the highest SOD activity.

Słowa kluczowe

Prion protein, SOD activity, Copper(II) complexes

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