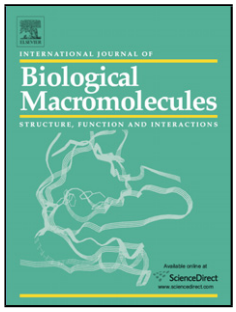

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Biochemical and biophysical characterization of a mycoredoxin protein Glutaredoxin A1 from *Corynebacterium pseudotuberculosis*

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Highlights

- *Cp*-GrxA1 was identified as a mycoredoxin protein.
- Description of the *Cp*-GrxA1 reduction assay by ESH.
- Identification and characterization of inhibitory effects of suramin, heparin, hesperidin, and hesperetin on *Cp*-GrxA1 using biochemical and biophysical methods.

Abstract

Glutaredoxin A1 from *Corynebacterium pseudotuberculosis* was shown to be a mycoredoxin protein. In this study, we established a process to overexpress and purify glutaredoxin A1. The aim of this study was the investigation of the Glutaredoxin A1 from *C. pseudotuberculosis* behavior under different redox environments and the identification of lead molecules, which can be used for specific inhibitor development for this protein family. A quantitative assay was performed measuring the rate of insulin