

Evaluation on the Antioxidant Activity of Fermentated Red Mold Rice and Dioscorea

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Abstract

This study discusses the antioxidant activity produced using both rice and dioscorea through fermentation of *Monascus* species. Since there are various antioxidant mechanisms, of which α, α -diphenyl- β -picrylhydrazyl free radical-scavenging, formation of conjugated diene form, superoxide dismutase-like activity, chelating activity on iron (II), and reducing power methods were used as the measuring index when evaluating the formation and ability of antioxidant activity. It was found that fermentated rice and dioscorea using *Monascus* species possessed a considerable antioxidant ability to provide antioxidant ingredients in traditional foods. Dioscorea was the optimum source for cultivating *Monascus* species because it resulted in the highest productivity of monacolin K.

Keywords : antioxidant activity, dioscorea, *Monascus*, monacolin K, red mold rice

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