

関西鍼灸短期大学年報, **15**, 19-23 (1999).

Comparisons of Antioxidative and Chelating Effects of Daidzein and Daidzin

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Abstract: Daidzein and its glycoside daidzin are isoflavones. The antioxidative effects of daidzein and daidzin were compared. While they each inhibited lecithin peroxidation induced by superoxide anion generation by xanthine- xanthine oxidase, the inhibitory effect of daidzein was stronger than that of daidzin. Neither had a scavenging effect on superoxide anion. Daidzein had a chelating effect against Fe^{3+} , while daidzin had only a slight chelating effect. These results showed that daidzein has a stronger antioxidative effect than its glycoside daidzin. This effect of daidzein may depend on its chelating effects.

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