

〈原 著〉

Paeonia suffruticosa Andrews の過酸化水素消去作用

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Hydrogen Peroxide Scavenging Activities of *Paeonia suffruticosa* Andrews

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Abstract

To find the compounds possessing the scavenging activity of hydrogen peroxide in plants, 30 types of plant extract were tested by using the 4-aminoantipyrine-phenol method. *Sanguisorba officinalis* L. and *Paeonia suffruticosa* Andrews, exhibiting the highest scavenging activity against hydrogen peroxides, were selected for further investigation. The hydrogen peroxide scavenging activity of these plant extracts was evaluated using a human dermal fibroblast culture system. *Paeonia suffruticosa* Andrews was found to have a protective activity against cell damage induced by hydrogen peroxide. Further, the mechanism of *Paeonia suffruticosa* Andrews on scavenging of hydrogen peroxides was analyzed with a Clark-electrode type oxygen monitor. The result suggested the possibility that *Paeonia suffruticosa* Andrews scavenged hydrogen peroxides in a reduction manner.

Key words: hydrogen peroxide, plant extracts, fibroblasts.