Antioxidant Activities of Chlorogenic Acids

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SUMMARY

Antioxidant activities of chlorogenic acids and related compounds were investigated by both the 1,1-diphenyl-2-picrylhydrazyl (DPPH) radical scavenging system and the superoxide anion-mediated linoleic acid peroxidation system. At 10 μM, 5-CQA, 3,5-DCQA and caffeic acid showed more scavenging activities on DPPH than *dl*-α-tocopherol or ascorbic acid. DPPH radical scavenging activities of these compounds increased dose-dependently at concentrations ranging from 1 to 50 μM. 5-CQA, 3,5-DCQA and caffeic acid inhibited the formation of conjugated diene from linoleic acid. The inhibitory activity of 3,5-DCQA was stronger than that of 5-CQA or caffeic acid.