

E-E2-61**Antioxidant activity and catechin content in water extracts of *Chrysanthemum indicum* L.****Hyoung Jae Park, Seok Hyun Eom, Chengwu Jin, Chang Yeon Yu, Dong Ha Cho**

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Determination of water-soluble elution from herbal teas is an important factor to efficient use of the teas, in terms of taste, perfume, and content of health components. In this work, we evaluated antioxidant activity and content of catechins in *Chrysanthemum indicum* L. teas to determine optimum eluting condition of the commercial teas by comparing between methanolic and water extracts, and among thermal treatments with time dependence. The water extract of *C. indicum* teas originated to flowers did not significantly differ on the yields compared with methanolic extracts and showed stronger antioxidant activity. On the other hand, Gham-ro Soo-guk Cha(GSC), a *C. indicum* tea originated to foliar tissues, showed significant low yield in water extract compared with methanolic extract and this tea presented the lowest antioxidant activity among the tea extracts. Catechin contents in *C. indicum* teas were 8 to 18% of the extracts where individual peaks in HPLC at 280 nm were comparatively analyzed with standard catechin peaks. *C. indicum* teas originated to the flowers showed fasten release of antioxidants and the antioxidant activity was positively correlated with thermal treatments. Guk-hwa Cha(GC) was the best tea to fasten release (≤ 30 sec) of antioxidants in 50°C treatment. At 75°C treatment, Cham Jo-eun(CJ), GC, and Hyang-ee Jo-eun Guk-hwa Cha(HJGC) were shown over than 90% DPPH free radical scavenging activity within 30sec. At 100°C treatment, all teas except for GSC were shown the activity within 30sec. In the case of GSC, optimum time for best release of antioxidants was over than 180sec at 50°C, around 180sec at 75°C, and around 120sec at 100°C.

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E-E2-62**증숙처리에 따른 포도즙의 항산화 물질 함량과 항산화 활성****박형재, 엄석현, 김성무, 조동하**

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포도주스는 기능성 물질인 페놀성 성분이 풍부할 뿐만 아니라 색향, 맛 등의 관능적 요소까지 함유하고 있어 세계적으로 널리 음용되고 있다. 본 연구에서는 포도(*Campbell Early*)를 100°C와 120°C에서 각각 5분, 10씩 처리하여 착즙한 포도즙의 총 폴리페놀 함량, 총 플라보노이드 함량 및 항산화 활성을 측정하여 천연의 생리활성 물질 함유한 항산화 물질을 가깝게 섭취할 수 있는 방안을 모색하고자 실시하였다. 실험결과 총 폴리페놀 함량과 총 플라보노이드 함량은 120°C 증숙처리구에서는 무처리구에 비해 높게 나타났으나 100°C 증숙처리구에서는 무처리구와 비슷한 결과를 나타냈다. 항산화활성도 120°C 증숙처리구에서 무처리구에 비해 높게 나타났으나 100°C 증숙처리구에서는 무처리구와 비슷하거나 약간 낮게 나타났다. 본 연구결과 보면, 120°C에서 5분이라는 짧은 시간을 처리하여도 더 많은 항산화 물질을 섭취할 수 있는 가공기술로 개발할 수 있을 것으로 사료된다.

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