

**E-E2-57****Analysis on the components and physiological activities of the  
*Torreya nucifera* seeds and stems**

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This study was conducted to analyze the components of seeds and stems and physiological activities of the ethanol extract from the *Torreya nucifera*. The contents of reducing and free sugar of seeds were 1,185.34 mg/100 g and 746.00 mg/100 g and those of stems was 480.60 mg/100 g and 514.00 mg/100 g, respectively. The content of soluble protein was 1010.02 mg/100 g in seeds and 1,509.89 mg/100 g in stems. The contents of polyphenol compound of seeds and stems were 191.72 mg/100 g and 384.74 mg/100 g. The water extract of seeds by pressure method showed the highest content as 112.95 mg/100 g, stems extract showed 83.74 mg/100 g. In the results of mineral analysis, the content of K was the highest as 546.40 mg/100 g and followed by 174.90 mg/100 g of Se in seeds. The mineral contents of stems were 681.00 mg/100 g of Ca and 381.00 mg/100 g of K. The electron donating ability of seeds extract showed the highest values of 66.46% at 0.1 mg/ml and decreased with an increment of extract concentration. The electron donating ability of stems extract was 53.28% at 1 mg/ml and did not show significant differences with the extract concentrations. The xanthine oxidase inhibitory rates of seeds and stems extract were increased with an increment of the extract concentrations, and the activity of seeds was the highest as 60.14% and that of stems was 85.71% at the concentration of 1.0 mg/ml.

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**E-E2-58****고려인삼, 중국인삼 및 미국인삼의 잎 함유성분 비교 분석**

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HPLC를 이용하여 고려인삼(Korean insam), 중국인삼(Chinese insam) 및 미국인삼의 잎에 함유되어있는 화학성분들의 분포패턴을 비교분석하고, 각 피크들에 대한 성분을 LC/MS/MS (UPLC/QTOF)를 이용하여 분석하였다. 그 결과 고려인삼잎과 미국인삼잎의 함유성분의 분포패턴에서 뚜렷한 차이를 나타내는 피크들을 확인하였으며 각 피크의 분자량과 분자식을 분석하였다. 고려인삼잎과 중국인삼잎의 함유성분의 분포패턴에서는 뚜렷한 차이를 나타내는 피크는 없었으며, 정량적인 부분에서 차이를 나타내는 피크들을 확인하였으며, 각 피크의 분자량과 분자식을 분석하였다. 고려인삼잎과 미국인삼잎의 성분 차이로부터 고려인삼과 미국인삼을 구분할 수 있는 있을 것으로 판단되며 이들 성분들은 지표물질로서 이용이 가능할 것으로 생각되나, 고려인삼과 중국인삼을 구분할 수 있는 성분들에 대해서는 지속적인 연구가 필요하다고 생각된다.

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