

(05-3-5)

Resveratrol contents extracted from leaves of grape cultivars in Korea

Hye-Jeong Park and Hyeon-Cheol Cha

Department of Biology, Dankook University, Anseo-dong, Cheonan, Chungnam 330-714, South Korea

Objectives

The aim of our work, we analyzed resveratrol contents in leaves of the various grape cultivars by using HPLC technique and compared them according to the harvesting time(April - August) and collecting locations (five regions on July).

Materials and Methods

1. Material

The leaves of grape were obtained from grape garden in 2002 and 2005.

2. Methods:

The HPLC system for resveratrol analysis consisted of a SCL 10A VP (Shmadzu, Japan) system and a 250 4.6 mm column (Shmadzu, Japan) was used for the separations. A multi-step gradient method was applied, using methanolwateracetic acid (10/90/1; v/v/v) mixture as solvent A and methanolwateracetic acid (90/10/1; v/v/v) mixture as solvent B at a flow rate of 3 ml/min. Chromatographic separations were monitored at 307 nm.

Results and Discussion

Resveratrol content was mainly dependent on varieties and vintage. The highest resveratrol concentration was found in 'Cheongsoo'(3 mg/g), and 'Honey Black' (2.5 mg/g), 'Kyoho'(2.3 mg/g), 'Schuyler' (2.2 mg/g) had high levels more than 2mg/g. The overall mean resveratrol concentration in a dozen of varieties was 1.8 mg/g. Also, red exocarp(221 $\mu\text{g/g}$) was higher than green exocarp(106 $\mu\text{g/g}$) in kyoho grape. Also, resveratrol content was varied by harvesting time to show highest on September (2.3 mg/g).