

Flavonols in the leaf of grapevines, tetraploid 'Kyoho'
and diploid 'Muscat berry A'

E4

Hye-Jeong Park¹, Chae Eun Lim², Chong-Wook Park², and Hyeon-Cheol Cha^{1*}

¹Department of Biology, Dankook University, Cheonan, 330-714, Korea

²Department of Biology, Seoul National University, Seoul, 151-741, Korea

Flavonoids are 15-carbon compounds generally distributed throughout the plant kingdom and three groups of flavonoids, anthocyanins, flavonols and flavones are of particular interest in plant physiology. Among them, flavonols play some important roles such as protection of plants from UV damage, as an antioxidant and co-pigmentation with anthocyanins. We analysed flavonol profiles in the leaf of *Vitis labruscana* cv. Kyoho and *Vitis vinifera* cv. Muscat berry A. In tetraploid *V. labruscana*, quercetin-glucoside was the major compound while kaempferol and isorhamnetin derivatives were present in minor amounts. But, in diploid *V. vinifera*, quercetin and kaempferol derivatives were the major compounds. This difference of major flavonols indicates that profiles of flavonols is somewhat different according to grapevine cultivars. And it is necessary to examine the glucoside groups of flavonols to discriminate the differences between species or cultivars of grapevines.

Keywords: Flavonol, Grapevine, Kyoho, Muscat berry A