## *Vitis vinifera L.x vitis labrus Ca L.* extract on antioxidant and antiphotoaging activity

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It had been reported that polyphenols, such as quercetin and resveratrol, which have various benefit effects including antioxidant, anti-inflammatory and anti-photoaging. In this study, stem extracts of Honey Red (*vitis vinifera L.x vitis labrus Ca L.*) contained quercetin by HPLC. Honey Red extract could scavenge free radical in 1,1-diphenyl-2-picrylhydrazyl (DPPH) radical-scavenging activity and 2,2'- azobis-2-methyl-propanimidamide (AAPH). MMP-1 and MMP-3 of fibroblast showed no significant decrease after treatment with 20 % and 50 % ethanol extract of Honey Red at 50  $\mu$ g/mL and 100  $\mu$ g/mL. However, expression of MMP-9 was reduced after treatment with 50% ethanol extract (50  $\mu$ g/mL) compared to UV exposed group. Reduction of type I procollagen caused by UV irradiation was inhibited by treating with 50  $\mu$ g/mL and 100  $\mu$ g/mL of 50% ethnol extract of Honey Red. According to these results, Honey Red can be an active ingredient in cosmetics based on antioxidant and anti-photoaging activities.

Keywords: Honey Red (*vitis vinifera L.x vitis labrus Ca L.*), photoaging, matrix metalloproteinases (MMPs)