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Rapid Identification of the α-Glucosidase Inhibitory Compounds from *Geranium thunbergii* Sieb. et Zucc. by HPLC-micro-fractionation and HPLC-UV-MS^n.

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In this study ethanol extracts of aerial part of *Geranium thunbergii* Sieb. et Zucc. was investigated for their ability to inhibit a-glucosidase, and thus was fractionated using two organic solvents, including dichloromethane, ethyl acetate. The ethyl acetate-soluble fraction, which manifested potent enzyme inhibitory properties, was then followed by tracking down the active compound by combining HPLC micro-fractionation to an enzyme assay in 96-well plate. The α-glucosidase inhibitory activity profile showed that two peaks exhibited potent inhibitory activity, and then the structural analyses of the two peaks were carried out by HPLC-UV-MS. The main α-glucosidase inhibitory compounds in the ethyl acetate-soluble fractions of ethanol extracts of *Geranium thunbergii* Sieb. et Zucc. were tentatively identified as geraniin and kaempferol-7-rhamnoside.

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