Inhibitory Potential of Poligala paniculata L. Against α-glucosidase

Aktsar Roskiana Ahmad, Risda Waris

Laboratory of Pharmacognosy-Phytochemistry, Faculty Of Pharmacy
Universitas Muslim Indonesia

Abstract: There are many Indonesian plants used as herbal medicine. For example, herbal medicine to treat the diabetes mellitus, such as Poligala paniculata L. In this point, we tested the ethanolic extracts of Poligala paniculata L. with respect to a glucosidase inhibition activity. Polygala paniculata L. used for herbal medicine as antihypertension and anticholesterol, and potential for hyperglycemia. The sample has extracted with maseration method using ethanol solvent. Antidiabetic assay with inhibitory of enzyme α-glucosidase. Our results show the extract of P. paniculata have a potential as antidiabetic with IC$_{50}$ 0.518 μg/mL. It is higher than the glucobay 0.017 μg/mL. These results demonstrate the ability of P. paniculata extract is still lower than the positive control, but this results contribute to understand the mechanism of action of these plants on glucose metabolism.

Key word: Antidiabetic, enzyme α-glucosidase, Poligala paniculata L.


*****