SCREENING OF α-GLUCOSIDASE INHIBITORY ACTIVITY FROM SOME PLANTS OF RUBIACEAE

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ABSTRACT
Diabetes mellitus (DM) is a metabolic disorder characterized by high blood sugar levels as a result of insulin resistance, insulin secretion insufficiency, or both. Type 2 DM is more common in diabetic populations. In this type of DM, inhibition of α-glucosidase is a useful treatment to delay the absorption of glucose after meals. As a mega biodiversity country, Indonesia still has a lot of potential unexploited forests to be developed as a medicine source, including as the α-glucosidase inhibitor. In this study, we determine the α-glucosidase inhibitory activity of 80% ethanol extracts of leaves and twigs of some plants from the Rubiaceae. Inhibitory activity test of the α-glucosidase was performed in vitro using spectrophotometric methods. Compared with the control acarbose (IC50 117.20 μg/mL), eight of ten samples were shown to be more potent α-glucosidase inhibitors with IC50 values range 3.64-80.27 μg/mL.