ABSTRACT

Antioxidant activity and chromatographic profile of ethanol 96% extracts of *Syzygium cumini*, *Syzygium aromaticum*, *Syzygium polyanthum* and *Syzygium aquaeum* leaves

Antioxidant activity of 96% ethanol extracts of *Syzygium cumini*, *Syzygium aromaticum*, *Syzygium polyanthum* and *Syzygium aquaeum* leaves were analyzed by spectrophotometer visible at 497 nm, 517 nm dan 537 nm. DPPH damping percent by extracts were measured by reacting 300 µL sample solution (various concentration) with 2700 µL 0,004% DPPH solution in methanol and then the mixture was incubated at room temperature over 30 minutes. The IC_{50} value of *Syzygium cumini* extracts was 9,6613 ppm, *Syzygium aromaticum* extracts was 12,3160 ppm, *Syzygium polyanthum* extracts was 11,5851 ppm and *Syzygium aquaeum* extracts was 10,3230 ppm. Each IC_{50} value obtained from replication were analyzed using one way anova followed by pos hoct test use LSD showed that there were a significant difference of antioxidant activity from each extracts. The 96% ethanol extracts of *Syzygium cumini* leaves have the lowest IC_{50} than others (more active as antioxidant than others).

The sample used in the assay of antioxidant by TLC-bioautography (DPPH 0,2 %) and chromatographic profile (λ = 254 nm) was ethyl acetate fraction of each extracts. Those fraction were used to facilitate the separation of myricitrin spot from other spots in the elute process. The TLC plate were eluted by chloroform : methanol : water : formic acid = 5 : 2 : 0,5 : 0,5. The 96% ethanol extracts of leaves of *Syzygium aquaeum* containing myricitrin more than any others. So these result showed that not only myricitrin had antioxidant activity in the 96% ethanol extracts of *Syzygium cumini*, *Syzygium aromaticum*, *Syzygium polyanthum* dan *Syzygium aquaeum* leaves.

Keywords : *Syzygium cumini*, *Syzygium aromaticum*, *Syzygium polyanthum* dan *Syzygium aquaeum*, antioxidant activity, DPPH, spectrophotometer visible, TLC-Bioautography.