

ABSTRACT

Study of Ethanol 80% Extract of *Garuga floribunda*, *Ochrosia akkeringae*, *Tabernaemontana pandacaqui* Potention by *In Vitro* Free-radical Scavenging Activity Test

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Indonesia is well known in biodiversity rich of plant species which only small proportion of the species have been investigated in detail. This study aimed to investigate free-radical scavenging activity of three plants obtained from exploration in Alas Purwo National Park in Banyuwangi, East Java. Leaf and stem ethanol 80% extract of *Garuga floribunda*, *Ochrosia akkeringae*, and *Tabernaemontana pandacaqui* were tested for their free-radical scavenging activity using 2,2-Diphenyl-1-picrylhydrazyl (DPPH) by TLC-autography and spectrophotometry method.

The TLC-autography result showed that all samples had free-radical scavenging activity, and the result from spectrophotometry showed that the lowest IC₅₀ value was ethanol 80% extract of *Garuga floribunda* leaf with IC₅₀ value 6,68 ppm whereas IC₅₀ value of vitamin C was 3,11 ppm. The highest IC₅₀ value was ethanol 80% extract of *Ochrosia akkeringae* leaf with IC₅₀ value 214,64 ppm. Plant with low IC₅₀ value may be potential to be developed as medicinal drug.

Keywords : *Garuga floribunda*, *Ochrosia akkeringae*, *Tabernaemontana pandacaqui*, TLC-autography, spectrophotometry, free-radical scavenging activity