Laili, Erlinda Rhohmatul, 2019, Isolation and Test of Antioxidant Activity of Secondary Metabolic Compounds from the Stem Ethyl Acetate Extract (*Dillenia serrata* Thunb), Thesis under guindance of Dr. Nanik Siti Aminah, M.Si and Dr. Abdulloh, M.Si, Department of Chemistry, Faculty of Science and Technology, Universitas Airlangga.

ABSTRACT

Jongi (*Dillenia serrata* Thunb) is one of the endemic plants originating from Palu, Central Sulawesi which is belonged to *Dilleniaceae* family. This study aims to determine the molecular structure of phenolic compounds that have been isolated from jongi stems (*Dillenia serrata* Thunb) and to determine the antioxidant activity of the ethyl acetate extract obtained. Isolation of secondary metabolites of jongi stems (*Dillenia serrata* Thunb) was initiated by conducting solid-liquid extraction using maceration with methanol solvents, then liquid-liquid extraction was carried out using ethyl acetate solvents. The process of separation and purification of the ethyl acetate extract was carried out using the gravity column chromatography technique. Characterization of isolated phenolic compounds was carried out by spectroscopy including : UV-Vis, IR and NMR. The isolated compound obtained was the flavan-3-ol group, namely 2-(3'4'-dihydroxifenil)-5,7-dihydroxycroman-3-yl-3",4",5"-trihydroxybenzoate or epikatecin-3-gallate. The antioxidant activity test of ethyl acetate extract and ascorbic acid as a positive control was carried out by the DPPH methode. This test gave the IC_{50} value of ethyl acetate extract was 15,08 ppm and the IC_{50} value of ascorbic acid was 10,61 ppm. It means that the ethyl acetate extract has the potential antioxidant activity.

Keywords : *Dillenia serrata* Thunb, secondary metabolite compound, flavan-3-ol, epicatecin-3-gallate, antioxidant, DPPH.