ABSTRACT

IDENTIFICATION OF ACTIVE FRACTIONS OF ANTIVIRAL HEPATITIS C FROM EXTRACT ETHANOL 80% Scopari dulcis Linn HERBS.

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*Scoparia dulcis* is a plant that belongs to Scrophulariaceae family. It used traditionally as remedies for stomach trouble. Previous study showed that ethanol extract 80% of *Scoparia dulcis* herbs has antiviral activity against hepatitis C virus JFH1a infected hepatocyte cell Huh7it with IC$_{50}$ value of 17.79 µg/ml. Further study is conducted on ethanol extract 80% of *Scoparia dulcis* herbs by using fractination liquid-liquid method and dichloromethane, ethyl acetate, and butanol as the solvent. The result showed that the dichloromethane fraction of ethanol extract 80% of *Scoparia dulcis* herbs has IC$_{50}$ value 5.32 ± 0.50 µg/ml. Ethyl acetate, butanol and water fraction of ethanol extract 80% of *Scoparia dulcis* herbs has IC$_{50}$ value more than 100µg/ml. Dichloromethane fraction of 80% ethanol extract of *Scoparia dulcis* showed the highest activity (IC$_{50}$ 5.32 ± 0.50 µg/ml) compared to ethyl acetate, butanol, and water fractions (IC$_{50}$ more than 100 µg/ml). Dichloromethane fraction of 80% ethanol extract of *Scoparia dulcis* has the highest toxicity with CC$_{50}$ value 23,31 µg/ml and SI 4.38. Ethyl acetate, butanol fraction, and water fraction of ethanol extract 80% of *Scoparia dulcis* herbs has CC$_{50}$ value more than 800µg/ml and SI more than 8. In conclusion, dichloromethane fraction of 80% ethanol extract of *Scoparia dulcis* has the highest antiviral activity hepatitis C, but it also toxic. It has chemical compound such as chlorophyll, terpenoid, and flavonoid.

Keyword : *Scoparia dulcis*, extract, fractions, antiHepatitis C virus