ABSTRACT

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

Laila Nurhidayatus Sholikin

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 againts 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) compare 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