ABSTRACT

ACTIVITY OF ANTIVIRAL HEPATITIS C EXTRACT AND FRACTIONS OF DICHLOROMETHANE HERBS

*Ruta angustifolia* (L.) Pers

Christin Natalia

*Ruta angustifolia* is a plant of Rutaceae’s family which has been traditionally used as remedy jaundice. Previous study showed that ethanol extract of *Ruta angustifolia* inhibit the hepatitis C virus against J6/JFH1 virus on hepatocyte cell Huh7it with IC$_{50}$ of 2.23 µg/ml. In order to continue our study, the dichloromethane of *Ruta angustifolia* extract was fractionated by Vacuum Liquid Chromatography (VLC) method using gradient chloroform and methanol solvent obtained 6 fractions. The activity of anti HCV of this 6 fraction has been done against virus JFH1a. The result showed that fraction 1, 2, 3, 4, 5, and 6 inhibit the virus growth with 50% inhibitory concentration (IC$_{50}$) of 27.32, >100 (6518.41), 2.91, 87.58, 27.54, and 24.95 µg / ml, respectively. Fraction-3 of dichloromethane extract of herbs *R. angustifolia* with IC$_{50}$ of 2.91 µg / ml has the highest potential activity as antiviral hepatitis C and another 5 fractions have the lower activity than fraction-3.

Keyword: *Ruta angustifolia*, Hepatitis C