Hepatitis C virus (HCV) is a global health concern which is responsible for most of the liver diseases. According to WHO (2014), patients with hepatitis C is estimated that more than 185 million people, every year there are 350,000 people died. Most (80%) of patients experiencing acute hepatitis C will develop into chronic hepatitis C who are also generally asymptomatic. Currently the standard treatment for chronic hepatitis C was performed using pegylated interferon alpha and ribavirin. Several studied of the Ficus plant leaves known have the ability pharmacology namely: antiinflamatsi, anti-tumor, anti-herpes simplex virus (HSV-1). A research was shown that the ethanol extract of Ficus fistulosa leaves have HCV inhibitory on entry phase. However, the identification of antiviral activity of ethanol extract of leaves of Ficus fistulosa in the entry phase of HCV has not been done. This study used a virus strain of genotype 2a JFH1 and cell line Huh7it. HCV entry mechanisms to hepatocyte by several steps: binding, post-binding and endocytosis. HCV entry phase mechanisms is a complex process involving many factors. It showed that the ethanol extract of leaves of Ficus fistulosa have IC₉₀ values of 57 μg/ml. At binding step the percent of inhibition extract is (23.50 ± 6.22)%%. While at the post-binding is (89.58 ± 0.8)%% and the phase endocytosis is (67.66 ± 2.95)%%. The data showed that ethanol extract of leaves of Ficus fistulosa have inhibition activity on binding step, post-binding step and endocytosis. The highest inhibition is happened on post-binding step and the lowest inhibition is on binding step. The information of ethanol extract of Ficus fistulosa leaves at every stage of the entry phase would greatly help further study on the molecular to identify active compounds that involved in those stages.

Key words: Ficus fistulosa extract, HCV, Inhibition, binding, post-binding, endocytosis