IN VITRO STUDY OF ANTIBACTERIAL ACTIVITY CHLOROFORM EXTRACT OF SOURSOP LEAF (Annona muricata L.) ON \textit{Pseudomonas aeruginosa} GROWTH

Imas Hapsari Rahmaningtyas

ABSTRACT

The aim of this research was to study antibacterial activity chloroform extract of soursop leaf (\textit{Annona muricata} L.) on bacterial growth inhibition of \textit{Pseudomonas aeruginosa} by diffuse disc method. The result of the inhibition zone was analyzed using Anova (Analysis of Variance) test and followed using Duncan test showed looks outcomes were significantly different (p <0.01). The inhibition number of negative control (K-) was 0,00\textsuperscript{c} \pm 0,00 and the positive control (K+) was 31,31\textsuperscript{a} \pm 0,57. The result of concentration 1 (P1) was 14,49\textsuperscript{b} \pm 4,96; concentration 2 (P2) 8,98\textsuperscript{c} \pm 1,29; concentration 3 (P3) 5,84\textsuperscript{cd} \pm 1,85; concentration 4 (P4) 5,56\textsuperscript{cd} \pm 1,58; concentration 5 (P5) 2,85\textsuperscript{de} \pm 0,28; concentration 6 (P6) 2,98\textsuperscript{de} \pm 0,53; concentration 7 (P7) 2,82\textsuperscript{de} \pm 1,59; concentration 8 (P8) 2,41\textsuperscript{de} \pm 1,10; concentration 9 (P9) 2,20\textsuperscript{de} \pm 0,34; concentration 10 (P10) 1,1\textsuperscript{e} \pm 0,19; and concentration 11 (P11) 0,00\textsuperscript{e} \pm 0,00. The increase chloroform extract of soursop leaf concentration showed high inhibition diameter of bacterial growth. It showed that chloroform extract of soursop leaf (\textit{Annona muricata} L.) have antibacterial activity to inhibit \textit{Pseudomonas aeruginosa} growth with Minimal Inhibitory Concentration (MIC) 125 ppm.

Keywords: Antibacterial activity, soursop leaves (Annona muricata L.), chloroform extract, \textit{Pseudomonas aeruginosa}