ABSTRAK

Nama : Zipora Apriliana

Program Studi : Farmasi

Judul : Uji Aktivitas Antibakteri Isolat (PLC1A) Kapang Endofit Tangkai Daun Kayu Jawa (*Lannea Coromandelica* (Houtt.)Merr) Terhadap Bakteri *Bacillus subtilis dan Escherichia coli.*

Tanaman Kayu Jawa (*Lannea coromandelica* (Houtt.) Merr) merupakan salah satu tanaman yang dapat ditumbuhi mikroorganisme endofit. Mikroorganisme endofit merupakan mikroorganisme yang hidup dalam jaringan tanaman pada waktu periode tertentu dan mampu hidup dengan membentuk koloni dalam jaringan tanaman tanpa membahayakan inangnya. Penelitian ini bertujuan untuk menguji aktivitas antibakteri isolat kapang endofit (PLC1A) tangkai daun kayu jawa terhadap bakteri *Bacillus subtilis* dan *Escherichia coli.* Terlebih dahulu dilakukan peremajaan isolat PLC1A selama 7 hari. Untuk mengetahui waktu fase stasioner dari isolat dilakukan kurva pertumbuhan kapang endofit selama 30 hari kemudiaan dilakukan fermentasi dengan metode statis selama 21 hari berdasarkan waktu fase stationer dari pertumbuhan isolat PLC1A. Selanjutnya hasil dari produksi senyawa aktif dilakukan uji aktivitas antibakteri dengan metode difusi cakram. Hasil pengujian aktivitas antibakteri menunjukan fraksi ekstrak etil asetat memiliki Diameter Daya Hambat sebesar 6,21 mm terhadap bakteri *Bacillus subtilis,* sedangkan fraksi ekstrak metanol tidak memiliki Diameter Daya Hambat terhadap bakteri *Bacillus subtilis* maupun *Escherichia coli.*

Kata kunci:

Kapang endofit, *Lannea coromandelica, Bacillus subtilis* dan *Escherichia coli*

ABSTRACT

Name	: Zipora Apriliana
Study Program	: Pharmacy
Title	:Antibacterial Isolate Activity Test (PLC1A) Endophytic Mold of Javanese Wood Leaves (Lannea Coromandelica (Houtt.) Merr) Against Bacillus subtilis and Escherichia coli Bacteria.

Javanese Wood Plant (Lannea coromandelica (Houtt.) Merr) is one of the plants that can be grown with endophytic microorganisms. Endophytic microorganisms are microorganisms that live in plant tissues at certain periods of time and are able to live by forming colonies in plant tissues without endangering their hosts. This study aimed to examine the antibacterial activity of endophytic fungi isolates (PLC1A) of Javanese wood leaf stalks against Bacillus subtilis and Escherichia coli bacteria. First, rejuvenation of PLC1A isolates was carried out for 7 days. To determine the stationary phase time of the isolates, endophytic mold growth curves were carried out for 30 days and then static method cultivation was carried out for 21 days based on the stationary phase of the growth of PLC1A isolates. Furthermore, the results of the production of active compounds were tested for antibacterial activity by disc diffusion method. The results of testing the antibacterial activity showed that the ethyl acetate extract fraction had a inhibitory power diameter of 6.21 mm against the Bacillus subtilis bacteria, whereas the methanol extract fraction did not have inhibitory power diameter against either Bacillus subtilis or Escherichia coli.

Keywords:

Endophytic fungi, Lannea coromandelica, Bacillus subtilis and Escherichia colli test bacteria