

## ABSTRACT

*Aspergillus brunneoviolaceus* partial is one of the endophytic fungi found in the plant tissue of *Syzygium aqueum*. This endophytic fungus has the potential as an antibacterial because it produces compounds almost the same as its host. The purpose of the study was to determine whether the ethyl acetate extract of the fungus *Aspergillus brunneoviolaceus* partial had antibacterial activity against *Staphylococcus aureus* bacteria, and could contribute to the eubacterial material in SMA/MA. This research was conducted at the Integrated Laboratory of UIN Raden Fatah Palembang. The type of research is quantitative Experiment with RAL research design. This study used 3 repetitions and 5 treatments, namely P1 (1000 ppm), P2 (500 ppm), P3 (250 ppm), P4 (125 ppm) and P+ (4%). Data analysis was carried out by ANOVA test, then continued with Duncan's test. The results showed that each treatment had an inhibition zone. The largest inhibition zone was found at the concentration of P3 with an average of 12.84 mm. While the MIC was found at the concentration of P4 with an average of 6.88 mm. Based on the results of data analysis, H1 was accepted because the significant value was  $<0.05$  (0.009) and Duncan's test showed that the positive control was significantly different from P1, P4, P2 and not significantly different from P3. The conclusion of this study is that the ethyl acetate extract of the fungus *Aspergillus brunneoviolaceus* partial has antibacterial activity against *Staphylococcus aureus* bacteria and its contribution is in the form of a pocket book on eubacteria material in SMA/MA.

**Keywords:** antibacterial, *Aspergillus brunneoviolaceus* partial, pocket book, endophytic fungus, *Staphylococcus aureus*

## ABSTRAK

Jamur *Aspergillus brunneoviolaceus* partial merupakan salah satu jamur endofit yang terdapat pada jaringan tanaman *Syzygium aqueum*. Jamur endofit ini berpotensi sebagai antibakteri karena menghasilkan senyawa hampir sama dengan inangnya. Tujuan penelitian ialah untuk mengetahui apakah ekstrak etil asetat jamur *Aspergillus brunneoviolaceus* partial memiliki aktivitas antibakteri terhadap bakteri *Staphylococcus aureus*, serta dapat memberikan kontribusi pada materi *eubacteria* di SMA/MA. Penelitian ini dilaksanakan di Laboratorium Terpadu UIN Raden Fatah Palembang. Jenis penelitian yaitu kuantitatif *Experiment* dengan desain penelitian RAL. Penelitian ini menggunakan 3 pengulangan dan 5 perlakuan yaitu P1 (1000 ppm), P2 (500 ppm), P3 (250 ppm), P4 (125 ppm) dan P+ (4%). Analisis data dilakukan dengan uji ANOVA, lalu dilanjutkan dengan uji Duncan. Hasil penelitian menunjukkan bahwa setiap perlakuan memiliki zona hambat. Zona hambat terbesar terdapat pada konsentrasi P3 dengan rata-rata 12,84 mm. Sedangkan KHM didapati pada konsentrasi P4 dengan rata-rata 6,88 mm. Berdasarkan hasil analisis data,  $H_1$  diterima karena nilai signifikan  $< 0,05$  (0,009) dan uji Duncan menunjukkan bahwa kontrol positif berbeda nyata dengan P1, P4, P2 dan tidak berbeda nyata dengan P3. Kesimpulan pada penelitian ini ialah ekstrak etil asetat jamur *Aspergillus brunneoviolaceus* partial memiliki aktivitas antibakteri terhadap bakteri *Staphylococcus aureus* dan sumbangsuhnya berupa buku saku pada materi *eubacteria* di SMA/MA.

**Kata kunci** : antibakteri, *Aspergillus brunneoviolaceus* partial, buku saku, jamur endofit, *Staphylococcus aureus*