

INTISARI

Jamur tiram (*Pleurotus ostreatus*) merupakan *edible mushroom* yang juga memiliki manfaat sebagai *medicine mushroom*. Jamur tiram memiliki berbagai kandungan kimia antara lain senyawa polisakarida β -glucans, lovastatin, asam galat, asam klorogenik, asam protokatesuat, narigenin, hesperetin, dan biokanin. Beberapa senyawa tersebut memiliki aktivitas penghambatan terhadap pertumbuhan bakteri. Untuk bisa terus mempelajari aktivitas metabolit bioaktif diperlukan metode pertumbuhan jamur yang lebih modern yaitu dengan menggunakan metode *submerged culture*. Salah satu medium yang bisa digunakan dalam metode *submerged culture* yaitu media cair *Kauffman Medium*

Penelitian ini termasuk penelitian eksperimental murni lengkap pola searah. Fraksi kloroform, etil asetat dan residu air dari filtrat kultur media cair (*submerged culture*) jamur tiram dalam produksi senyawa metabolit bioaktif di uji aktivitas antibakteri. Penentuan antibakteri dilakukan dengan mengukur zona hambat terhadap bakteri *Escherichia coli* dan *Staphylococcus aureus* dari masing - masing fraksi dilanjutkan dengan penentuan nilai KHM menggunakan metode turbidimetri dilusi cair. Identifikasi golongan senyawa yang terkandung didalam fraksi filtrat diuji dengan menggunakan metode KLT meliputi identifikasi senyawa golongan alkaloid, flavonoid serta terpenoid . Hasil penelitian dianalisis dengan program R 64 bit versi 3.1.0

Hasil penelitian yang diperoleh fraksi kloroform menunjukkan zona hambat irradikal terhadap pertumbuhan bakteri *Staphylococcus aureus* pada konsentrasi 50 % dan 25 %. Fraksi kloroform filtrat medium kloroform memiliki nilai KHM pada konsentrasi 35 %. Identifikasi kandungan golongan senyawa pada fraksi kloroform diduga mengandung komponen flavonoid dan terpenoid, fraksi etil asetat mengandung golongan senyawa alkaloid serta fraksi residu air mengandung golongan senyawa flavonoid.

Kata kunci: Jamur tiram (*Pleurotus ostreatus*), *Submerged culture*, *Kauffman Medium* , Aktivitas Antibakteri, *E. coli*, *S.aureus*, KHM

ABSTRACT

Oyster mushroom (*Pleurotus ostreatus*) is an edible mushroom that also has the benefit of a mushroom medicine. Oyster mushrooms have a variety of chemical constituents such as β -glucans polysaccharide compounds, lovastatin, gallic acid, chlorogenic acid, acid protokatesuat, narigenin, hesperetin, and biokanin. Some of these compounds have inhibitory activity against the growth of bacteria. To be able to continue to study the activity of bioactive metabolites required methods more modern mold growth is by using the method of submerged culture. One medium that can be used in the method of submerged liquid culture medium that Kauffman Medium

This research is purely experimental methods complete randomized design. Fraction of chloroform, ethyl acetate and water residue from liquid media culture filtrate (submerged culture) in the oyster mushroom production of bioactive metabolites was determined antibacterial activity. Determination of antibacterial activity by measuring inhibition zone against *Escherichia coli* and *Staphylococcus aureus* of each fraction, then determination of MIC values using turbidimetry liquid dilution method. Identification class of compounds contained in the filtrate fraction was determined by TLC method includes identifying compound of alkaloids, flavonoids and terpenoids. Results were analyzed with the program R version 3.1.0 64 bit

Research results obtained by the chloroform fraction can inhibit growth of *Staphylococcus aureus* at concentrations of 50% and 25% by measurement of inhibition zone. Chloroform fraction of the filtrate medium chloroform MIC value at 35% concentration. Identification content class of compounds in the chloroform fraction thought flavonoids and terpenoids component, ethyl acetate fraction containing alkaloid compound classes and class fractions containing water residues flavonoid compounds.

Keyword : Oyster mushroom (*Pleurotus ostreatus*) , Submerged culture, *S. aureus*, MIC