ABSTRACT

INHIBITION POWER OF EEL FISH MUCUS, *Anguilla Bicolor* (McClelland, 1844) TO *Escherichia coli* BACTERIA'S GROWTH

By

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Background. In recent years, antibiotics drug found a resistance for many kind of bacteria, such as *Escherichia coli.* Because of it, the urgency to find a new drug that have sensitivity to *Escherichia coli* is needed. Eel fish of *Anguilla bicolor* have a potential antimicrobial in its mucus composition for future antibiotic drug. This research is aimed to know inhibition power of eel fish mucus, *Anguilla bicolor* (McClelland, 1844) to *Escherichia coli* bacteria's growth.

Methods. Present study was an experimental *in vitro* test with well diffusion method to show inhibition zone of eel fish mucus to *Escherichia coli* bacteria's growth. This research has 24 trial unit with 3 repetition for 8 trial, that are eel fish mucus, *Anguilla bicolor* with concentration 100%, 50%, 25%, 12,5%, 6,25%, NaCl as control negative, ampicillin and chloramphenichol as control positive.

Result. The result of this present study showed that the eel mucus from *Anguilla bicolor* (McClelland, 1844) has 0 mm inhibition zone of each consentration to *Escherichia coli* bacteria's growth.

Conclusion. *Anguilla bicolor* (McClelland, 1844) mucus has not antibacterial activity against *Escherichia coli* bacteria.

Keyword: *Anguilla bicolor,* diameter of inhibition zone, eel fish mucus, *Escherichia coli,*.

ABSTRAK

UJI DAYA HAMBAT LENDIR IKAN SIDAT, *Anguilla bicolor* (McClelland, 1844) TERHADAP PERTUMBUHAN BAKTERI *Escherichia coli*

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Latar Belakang. Antibiotik telah mengalami berbagai resistensi, contohnya resistensi yang terjadi pada bakteri *Escherichia coli*. Resistensi antibiotik ini menyebabkan meningkatnya kebutuhan agen antibiotik baru yang masih sensitif terhadap *Escherichia coli*. Lendir ikan sidat memiliki potensi sebagai antibiotik. Penelitian ini bertujuan untuk mengetahui daya hambat lendir ikan sidat, *Anguilla bicolor* (McClelland, 1844) terhadap pertumbuhan bakteri *Escherichia coli*.
Metode Penelitian. Penelitian ini dilakukan secara in vitro dengan menggunakan difusi sumuran untuk melihat daya hambat lendir ikan sidat terhadap pertumbuhan bakteri *Escherichia coli*. Pada penelitian ini terdapat 24 satuan percobaan dengan 3 kali ulangan untuk 8 perlakuan, yaitu lendir ikan sidat, *Anguilla bicolor* dengan konsentrasi 100%, 50%, 25%, 12,5%, 6,25%, kontrol negatif NaCl, kontrol positif dengan menggunakan ampisilin dan kloramfenikol.
Hasil Penelitian. Penelitian ini membuktikan bahwa lendir ikan sidat, *Anguilla bicolor* (McClelland, 1844) memiliki 0 mm daya hambat terhadap pertumbuhan bakteri *Escherichia coli*.
Simpulan Penelitian. Ikan sidat, *Anguilla bicolor* (McClelland, 1844) tidak memiliki aktivitas antibakterial terhadap pertumbuhan bakteri *Escherichia coli*.

Kata Kunci : *Anguilla bicolor*, diameter zona hambat, *Escherichia coli*, lendir ikan sidat.