

**THE ANTIBACTERIAL EFFECT OF TURMERIC
EXTRACT ON GRAM-NEGATIVE BACTERIA
ISOLATED FROM ELEVATOR BUTTON**

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ABSTRACT

THE ANTIBACTERIAL EFFECT OF TURMERIC EXTRACT ON GRAM-NEGATIVE BACTERIA ISOLATED FROM ELEVATOR BUTTON

Gram-negative bacteria become more reliable on antibiotic-resistant bacterial disease. Spread of infectious disease need a concern to control the microorganisms at different surface of environment. Essential accessories of social life like elevator button could be an exposed area that easily lead to infection of bacteria towards the community. Regarding to the way of prevention towards the microorganisms by orally or indirectly, there need a sanitizer to wash hand and this hand washing will come from natural resource. Turmeric and its polyphenolic compound curcumin used extensively in traditional and low side effects. The aims of this research were to identify potential Gram-negative at elevator button and determined the antibacterial effect of turmeric towards the Gram-negative bacteria. The result of this study showed Gram-negative bacteria isolated were *Escherichia coli* and *Klebsiella pneumonia*. The identification of this Gram-negative bacteria was proven by biochemical test which were IMViC test, growth on Eosin Methylene Blue (EMB) agar and gram staining method. For antibacterial effect of turmeric, disc diffusion method was used towards the Gram-negative bacteria which were *E.coli* and *K.pneumoniae*. The antibacterial activity of turmeric extract were examined in this study and were found that the extract cannot perform antibacterial effect against the Gram-negative bacteria due to turmeric extract that had been prepared earlier does not used immediately cause the curcumin contain lost as the optimum potential of curcumin was limit by quick metabolism. Furthermore, other reason because of diacetylcurcumin that not display any antibacterial effect against tested bacteria. Positive control used was tetracycline show zone of inhibition while no inhibition zone by negative control which was ethanol.