

**ANTIBACTERIAL ACTIVITY OF ETHANOLIC EXTRACT
OF CINNAMONS AGAINST FOODBORNE PATHOGEN IN
MALAYSIA**

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ABSTRACT

ANTIBACTERIAL ACTIVITY OF ETHANOLIC EXTRACT OF CINNAMONS AGAINST FOODBORNE PATHOGEN IN MALAYSIA

This study aims to determine the presence of antibacterial activity in the crude extracts of one of the common herbs in Malaysia. The ethanolic extracts of pure cinnamon sticks and commercial powdered cinnamon extracts were tested for their antibacterial activities against food-borne pathogen, *Escherichia coli* using agar disc diffusion technique. The extracts prepared with different concentrations ranging from 60%, 70%, 80%, 90% and 100% (mg/ml) were inoculated with bacteria on Mueller-Hinton agar and incubated overnight at 37°C. The study has successfully proven that all concentrations of the extracts inhibited the bacterial growth. The presence or absence of inhibition zones indicate the antibacterial activities. Besides that, the positive control (Gentamycin, 30 µg/ml) showed zone of inhibition > 20mm while negative control (DMSO) showed the absence of inhibition zone. For pure cinnamon, application of 100% (100mg/ml) concentration showed largest diameter which is 21.30mm. The smallest diameter of zone is observed on 60% concentration, which is 10.67mm. Meanwhile, in commercial powdered cinnamon extract, the highest diameter of inhibition zone is observed on 80% concentration which is 13.33mm and 60% concentration established the lowest diameter of inhibition zone, 9.33mm. In conclusion, *Cinnamomum* sp. extract is a potential antibacterial agent for treating *Escherichia coli* infection.