

**STUDY OF ANTIOXIDANT AND ANTIBACTERIAL ACTIVITIES
OF LEAVES EXTRACTS FROM *Artocarpus altilis* (BREADFRUITS)**

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ABSTRACT

STUDY OF ANTIOXIDANT AND ANTIBACTERIAL ACTIVITIES OF LEAVES EXTRACTS FROM *Artocarpus altilis* (BREADFRUITS)

This study was focused on the crude extraction of leaves *Artocarpus altilis* with three different solvents (methanol, chloroform and petroleum ether) by soxhlet extraction. The crude extracts was continued to investigate the TLC profiling, antioxidant activity via DPPH method and antibacterial activity by disc diffusion method. Methanol extract gave the highest weight percentage, 6.44%, For TLC profiling, methanol extract showed spot by using hexane: ethyl acetate (4:1) solvent system while chloroform and PE showed the spot at petroleum ether: ethyl acetate (2:3) and chloroform: ethyl acetate (3.5:1.5) respectively. Methanol extract showed the highest percentage of DPPH scavenging at 1000 $\mu\text{g/mL}$ which is 80.62% compare to both chloroform and petroleum ether extracts for antioxidant activity. *Staphylococcus aureus*, *Bacillus subtilis*, *Salmonella sp* and *Escherichia coli* were used to evaluate the antibacterial activity of leaves extracts. Chloroform extract showed the highest zone of inhibition which is 11 mm against both *Bacillus subtilis* and *Salmonella sp*. Methanol extract showed the highest inhibition, 9 mm against *Escherichia coli* but PE extract showed the lowest inhibition, 7 mm against *Escherichia coli*. All three extracts showed significant activities against the four tested bacteria.