

Antibacterial activity of papaya leaf extracts against pathogenic bacteria

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Abstrak

<i>It was reported that the extracts of papaya leaves could inhibit the growth of *Rhizopus stolonifer*. Antibacterial activity of *Carica papaya* leaf extracts on pathogenic bacteria was observed in this study. Papaya leaves were extracted by using maceration method and three kinds of solvents : ethanol, ethyl acetate, and hexane. Papaya leaf extracts were tested against *Bacillus stearothermophilus*, *Listeria monocytogenes*, *Pseudomonas* sp., and *Escherichia coli* by agar diffusion method. The objectives of this study were to determine extract ability against pathogenic bacteria, to observe the influence of pH, NaCl, and heat on extracts ability, and to observe extract ability against *B.stearothermophilus* spores. The data showed that ethyl acetate extract could inhibit *B. stearothermophilus*, *L. monocytogenes*, *Pseudomonas* sp., and *E. coli*. The extract activity was influenced by pH, and it was more effective in low pH. The extract activity was influenced by NaCl against *B. stearothermophilus* and *E. coli* . However, it was not influenced by NaCl in bioassay against *L. monocytogenes* and *Pseudomonas* sp. The extract activity was influenced by heating process against all the bacteria tested. The extracts inhibited *B. stearothermophilus* spores as well. Papaya leaves are potential natural anti -bacteria, which might be used in certain kinds of food.</i>