

**ISOLATION AND IDENTIFICATION OF  
POTENTIAL PATHOGENIC BACTERIA IN  
SATAY SAMPLE AT KUALA PILAH,  
NEGERI SEMBILAN BY USING PCR  
METHOD**

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## ABSTRACT

### **ISOLATION AND IDENTIFICATION OF POTENTIAL PATHOGENIC BACTERIA IN SATAY SAMPLE AT KUALA PILAH, NEGERI SEMBILAN BY USING PCR METHOD**

Within the natural environment, pathogenic bacteria are literally everywhere and need nutrients to survive and replicate. As satay meant to be a famous delicious street food among humans, it is also a source of nutrients for these pathogenic bacteria including *Salmonella* spp. and *Escherichia coli* O157:H7. Furthermore, the exposure of satay to the open environment during preparation and grilling stages did increase the probability of bacterial existence within it. The aim of this study was to isolate and identify specific pathogenic bacteria in satay which can cause numerous diseases in consumers such as Salmonellosis, bloody diarrhea, and even typhoid fever. The samples with positive growths (white colonies) on selective Mac Conkey Agar (MCA) after serial dilution were counted and isolated for PCR amplification. The positive growth observed in Tryptone Soya Agar (TSA) were eliminated from isolation because the growth were too much too count (TMTTC) for every plates. Furthermore, the risks of contamination were higher in TSA as it supports growth of many bacterial species. In the view of qualitative analysis, there is 60% probability of success in detecting prevalence of *Salmonella* spp. in raw satay samples through the PCR bands produced. At the quantitative analysis level, every isolated colony showed same sizes (403 bp) which indicated the existence and commonness of *Salmonella* spp. in each positive sample.