

## **DETEKSI DAN ISOLASI BAKTERI *Enterococcus* sp. PADA SAMPEL DAGING AYAM DI PASAR PRAWIROTAMAN, KOTA YOGYAKARTA**

Oleh:

**PUTRI HAYUNING TYAS**

**22/492562/SV/20556**

### **INTISARI**

Daging ayam merupakan protein hewani untuk memenuhi kebutuhan dasar manusia. Proses sejak pemotongan hingga penjualan yang tidak higienis di pasar tradisional dapat menyebabkan kontaminasi bakteri patogen, salah satunya *Enterococcus* sp., namun data cemarannya masih terbatas. Tugas Akhir ini bertujuan untuk mendeteksi dan mengidentifikasi bakteri *Enterococcus* sp. pada enam sampel daging ayam di pasar Prawirotaman, Kota Yogyakarta, menggunakan metode uji mikrobiologi dengan media selektif diferensial untuk *Enterococcus* sp., uji pewarnaan Gram, katalase, toleransi NaCl 6,5%, dan gula-gula menggunakan gula laktosa dan glukosa. Peneguhan spesies spesifik bakteri dilakukan dengan metode *Polymerase Chain Reaction* (PCR) koloni multipleks. Hasil pengujian mikrobiologi menunjukkan seluruh sampel terdeteksi *Enterococcus* sp. Sebanyak 24 isolat terpilih berdasarkan perbedaan warna koloni pada media selektif diferensial menunjukkan karakter biokimia yang sama yaitu Gram positif, katalase negatif, toleran terhadap NaCl 6,5%, dan mampu memfermentasi glukosa dan laktosa. Hasil uji molekuler menunjukkan terdapat dua jenis spesies bakteri *Enterococcus* sp. yaitu *E. faecium* 66,67% (16/24) dan *E. faecalis* 25% (6/24). Hasil pengujian mengindikasikan keberadaan bakteri *Enterococcus* sp. pada sampel yang diuji. Hasil ini belum dapat mewakili kondisi keseluruhan di Pasar Prawirotaman, Kota Yogyakarta karena jumlah sampel yang terbatas.

**Kata kunci :** *Enterococcus* sp., teknik PCR, uji mikrobiologi

## DETECTION AND ISOLATION OF *Enterococcus* sp. IN RAW CHICKEN MEAT SAMPLES IN PRAWIROTAMAN TRADITIONAL MARKET, YOGYAKARTA

By:

**PUTRI HAYUNING TYAS**

**22/492562/SV/20556**

### ABSTRACT

Raw chicken meat is one the source of animal protein consumed by humans. The process from slaughtering to the market that is conducted under unhygienic conditions in traditional markets may lead to contamination by pathogenic bacteria, including *Enterococcus* sp.; however, data regarding its contamination remain limited. This study aimed to detect and identify *Enterococcus* sp. in six chicken meat samples collected from Prawirotaman Market, Yogyakarta City. The identification was conducted using microbiological tests with selective differential media for *Enterococcus* sp., Gram staining, catalase test, 6.5% NaCl tolerance test, and carbohydrate fermentation tests using lactose and glucose. Confirmation of specific bacterial species was performed using multiplex colony Polymerase Chain Reaction (PCR). The results showed that all samples were positive for *Enterococcus* sp. A total of 24 selected isolates based on colony color differences on selective differential medium exhibited similar biochemical characteristics including Gram-positive, catalase-negative, tolerant to 6.5% NaCl, and capable of fermenting glucose and lactose. Molecular analysis revealed two species of *Enterococcus* sp., *E. faecium* at 66.67% (16/24) and *E. faecalis* at 25% (6/24). In summary, this study indicate the presence of *Enterococcus* sp. in the tested samples. However, these results may not represent the overall condition of Prawirotaman Market, Yogyakarta City, due to the limited number of samples.

**Keyword:** *Enterococcus* sp., microbiological test, PCR technique.