

**DETEKSI ANTIMICROBIAL RESISTANCE PADA BAKTERI  
*CITROBACTER FREUNDII* YANG DIISOLASI DARI SWAB HEWAN  
PENGHASIL PANGAN**

**Intan Permatasari Hermawan**

**ABSTRACT**

The aim of this study was to detect *bla*<sub>TEM</sub> gene which the agent of antibiotic resistance in *Citrobacter freundii* isolated from rectal swab in dairy cattle, beef cattle, broiler chicken, catfish and milkfish. A total samples were 45 samples which rectal swab taken from 9 locations and 5 samples taken per location. Rectal swab beef cattles from Krian, dairy cattles from Kaliwaron and Bendul Merisi, broilers from Wonokromo, Keputran, Pacar Keling, catfishes (*Pangasius hypophthalmus*) from Sedati and Pabean and milkfish (*Chanos chanos*) from Sidoarjo. Then, samples were isolated with selective media and biochemical tests. Antibiotic Resistance test was using the disc diffusion against 20 µg amoxicillin, 20/10 µg amoxicillin-clavulanic acid, 10/10 µg ampicillin-sulbactam, 30 µg cefotaxime, 30 µg ceftazidime, 23.75/1,25 ug sulfametaxole-trimethoprim, and 30 µg tetracycline and then detection of *bla*<sub>TEM</sub> gene used PCR. The Result showed that seven samples were positive *Citrobacter freundii* of broiler from Keputran (AK-5), broiler from Wonokromo (AW-1), dairy cattle from Bendul Merisi (SB-3), dairy cattle from Krian (SPT.K-1) and milkfish from Sidoarjo (IBS-1, IBS-2, IBS-4). Samples code AK-5, AW-1, SB-3 resistant to ampicillin-sulbactam and tetracycline but SPT.K-1, IBS-1, IBS-2, IBS-4 resistant to amoxicillin and ampicillin-sulbactam. Those seven samples were positive *bla*<sub>TEM</sub> gene with 445 bp size used PCR.

**Key words:** Antimicrobial resistance, *Citrobacter freundii*, Rectal swab, *bla*<sub>TEM</sub> gene, ESBL