PROFILE OF ANTIBIOTIC RESISTANCE AND DETECTION _ereA_
GENES FROM _Escherichia coli_ ISOLATED FROM FRESH MILK IN
EAST JAVA AREA

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ABSTRACT

One bacteria that should not be in milk is _Escherichia coli_. The discovery of pathogenic bacteria or commensal in milk resistant to antibiotics has significance effect for public health. The aim of this research is to know the resistance and find fragment of resistance gene of _Escherichia coli_ bacteria against antibiotics. Sample was taken from 5 dairy farms in East Java. It was tests for CMT, isolation and _Escherichia coli_ identification, sensitivity test, and PCR test. The results showed that from 150 milk samples, there were 128 (85.33%) mastitis samples and 94 samples were identified _Escherichia coli_. 100% resistant erythromycin; 100% sensitive chloramphenicol; 53.8% isolate N, 65.4% isolate G, 73.3% isolate B, and 68% isolate S sensitive to oxytetracycline; 46.1% isolates N and G, 36.8% isolate B, and 52% isolate S showed intermediate for gentamycin. The PCR result test showed 2 positive samples from 12 isolates which resistant erythromycin in the amplification of the _ereA_ gene primer. It is necessary to test the other encoding genes against erythromycin antibiotics.

**Keyword:** Antibiotic resistance, _ereA_, _Escherichia coli_, Polymerase Chain Reaction