

**ANTIBIOTIC SENSITIVITY TEST AND IDENTIFICATION OF
ENTEROTOKSIN C ENCODING GENE IN *STAPHYLOCOCCUS AUREUS*
FROM COW MILK IN SEVERAL FARMS EAST JAVA**

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ABSTRACT

The aim of this research was to know sensitivity antibiotics and identification encoding gene enterotoxin C in *S. aureus* from milk in several farms of East Java. Isolated *S. aureus* that was resistant to MRSA from milk and acknowledged the different sensitivity of *S. aureus* to some antibiotics as well as amplified the encoding genes of enterotoxin C in MRSA and MSSA isolates. This study was conducted in vitro by streak method for *S. aureus* isolate, susceptibility test antibiotics with *Kirby-Bauer Agar* diffusion method with *Mc Farland 0.5* standard, MRSA detection test using Cefoxitin disk diffusion on *Mueller Hinton Agar* and PCR technique for encoding gene of enterotoxin C in *S. aureus* and MRSA. As many 148 milk samples, 24 positive isolates of *S. aureus* were obtained. The colonies can be fermented mannitol, shape like a coccus, Gram positive, produce katalase, and koagulase. Sensitivity to some antibiotics that show erythromycin is an antibiotic that has the highest level of sensitivity reaches 100%. MRSA detection test contained one positive isolate, PCR test showed two isolates MSSA had enterotoksin C gene with molecular weight of 257 bp. Based on the result of this study it is advisable to conduct other antibiotic sensitivity tests to determine the sensitivity of antibiotics agains *S. aureus*, and should be aware milk can also be reservoir MRSA to humans, also need to be futher research on the presence of other types enterotoxin encoding gene derived from milk.

Key words : *Staphylococcus aureus, Sensitivity test, Methicillin Resistant Staphylococcus aureus, enterotoxin C*