ISOLATION AND THE SENSITIVITY TEST OF *Escherichia coli* AGAINTS KANAMYCIN AND NOVOBIOCIN ANTIBIOTICS ON DAIRY CATTLE'S MILK WITH SUBCLINICAL MASTITIS IN SUB PAKEM

ABSTRACT

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Mastitis is one of many diseases that can cause any harm. This research is aimed to identify isolation, identification and the sensitivity test of *Escherichia coli* cause of subclinical mastitis against *kanamycin* and *novobiocin* antibiotics.

Twenty samples of cow's milk are cultured on *Blood plate agar (*BPA) and *MacConkey Agar* (MCA) and incubated at 37^{o} C for 24 hours. Colonies that grow are grouped according to their colony morphology and then continued by biochemical test which are confectionery test, *Sulphide Indol Motility* (SIM), *Indol*, *Tryptitase Soy Agar* (TSA) dan *Simon Citrate*. To know the sensitivity of bacteria to *Kanamycin* and *Novobiocin* antibiotics, the bacteria that have been cultured on *Brain Heart Infussion* (BHI), and then cultured again on *Muller Hinton Agar* (MHA) are measured of resistance zone after incubated for 24 hours on 37^{o} C.

The results showed that once confirmed, from twenty samples of cow's milk, obtain eleven samples that infected of *Escherichia coli* bacteria. The sensitivity test showed that seven isolate (63,6%) are sensitive to *Kanamycin*, four isolate (36,3%) are intermediate-sensitive to *Kanamycin*. While for *Novobiocin*, ten isolate (90,9%) are resistance against it, and one isolate (9,09%) are sensitive of it.

Keywords : *Escherichia coli*, Mastitis, Subclinical, *kanamycin*, *novobiocin*