

## ABSTRACT

### CHARACTERIZATION OF BACTERIOSIN PRODUCED LACTIC ACID BACTERIA (LAB) FROM SUMBAWA HORSE MILK

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The purpose of this study was to analyze the bacteriocin produced by lactic acid bacteria (LAB) as an antibacterial. These bacteriocins can inhibit the growth of indicator bacteria such as *Staphylococcus aureus*, *Escherichia coli* and *Bacillus cereus*. This study also studied the characterization of bacteriocin produced by LAB. The results showed that bacterial LAB species based on identification with Microbact KIT 12A and Microbact KIT 12B method were *Streptococcus equinus* 93,75% and bacteriocin produced could inhibit the growth of *Staphylococcus aureus*, *Escherichia coli* and *Bacillus cereus*. The presence of inhibition of growth of these bacteria in the presence of the formation of clear zones around the colonies on the media Mueller Hinton Agar (MHA). The bacteriocin activity test remains active after heating to 80 ° C for 15 minutes, 30 minutes and 100 ° C for 15 minutes, 30 minutes. Bacteriocin is activated by 5% trypsin enzyme. The characterization of *Streptococcus equinus* is coccus shaped and Gram-positive, fermenting glucose.

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**Keyword:** Lactic acid bacteria (BAL), *Streptococcus equinus*, bacteriocin