ABSTRACT

The Effect of carbon Source on Bacteriocin Production Produced by Lactic Acid Bacteria from Fermented Cocoa Beans (Theobroma cacao L.) *Literature Review*

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Bacterial resistance is a problem in the treatment of infectious diseases. The presence of resistant bacteria is caused by the effectiveness of classical antibacterial to decrease significantly. This problem takes a new antibacterial which can inhibit the growth of pathogenic bacteria. Lactic Acid Bacteria (LAB) is a very potential source to be used as a new antibacterial. LAB can have the ability to produce bacteriocin, a compound that has antibacterial activity. In recent years, LAB and its products (bacteriocin) have shown many positive health effects. Bacteriocin production is influenced by several factors, the factors are one of which composition of the media. Furthermore, Bacteriocin can grow well on MRS media. However, the media still need modification to be optimal on bacteriocin production. Modifications can be made by adding a carbon source to the growth medium. This research was conducted in a literature review by comparing several literatures that is related to the topic for discussion. The optimal carbon sources for the growth of bacteriocin is glucose with concentration 1 – 5 %, lactose with concentration 0,5 – 2 %, maltose with concentration 1 – 2 %, and mannose with concentration 2 – 3 %.

Keywords: Lactic Acid Bacteria, Bacteriocin, Carbon source