

**IDENTIFIKASI BAKTERI ASAM LAKTAT DARI ASI DAN FAKTOR-FAKTOR
YANG MEMPENGARUHI JUMLAH KOLONI PADA ASI**

TESIS

OLEH

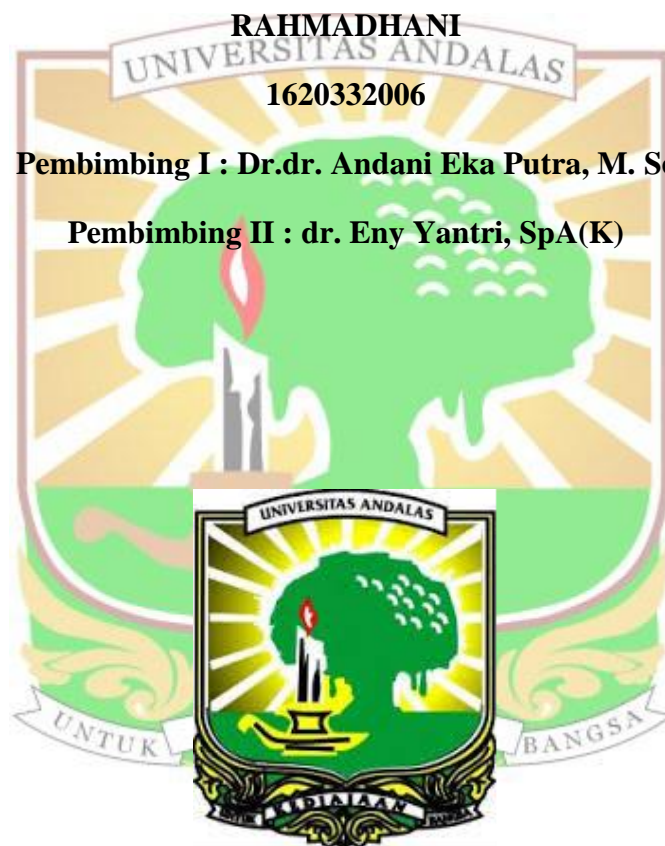
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ABSTRACT

IDENTIFICATION AND FACTORS THAT AFFECT THE COLONY NUMBER OF LACTIC ACID BACTERIA ON BREAST MILK

Breast milk or mother milk, is an ideal nutrition for babies that is rich in essential nutrition such as bioactive compounds, proteins, carbohydrates, and immunoglobulin. Breast milk also contains lactic acid bacteria (LAB), which play a role in the development of microbiota inside the intestines of a baby. Therefore, LAB has a significant role to maintain a baby's health. This research focused on identifying the types of LAB and the number of colonies, as well as the factors that affect the number of colonies, inside breast milk.

The design of this research is a cross sectional study. Respondents of this research were 50 mothers with babies, that qualify into inclusive and exclusive criteria. Types of LAB identified in breast milk, were observe macroscopically, microscopically, and molecularly, while the number of LAB colonies was observed macroscopically only. Meanwhile, types of childbirth and gestational age, were determined via direct observation method. Statistical analysis used on this research were independent sample test, Spearman correlation, and one-way ANOVA test.

Results show that the average number of LAB colonies in breast milk is $204.36 \log \text{ cfu/gr} \pm \text{SD}$, respondents who gave birth normally is 60%, the average age of respondents giving birth in gestational age is $38.6 \pm \text{SD}$ (37-41 mgg), and respondents who have mature breast milk is 53%. There is a significant difference in the average LAB colonies in colostrum, transitional breast milk, and mature breast milk. There is no significant difference in the average LAB colonies of normal breast milk and Caesarean breast milk. Lastly, it was found that there is no significant relation between gestational age and the number of LAB colonies in breast milk.

In conclusion, there is strong relation between the lactation stadium with the number of LAB colonies in breast milk. However, there is no relation between the type of childbirth and gestational age, with the number of LAB colonies in breast milk.

Key Words: LAB, lactation stadium, type of childbirth, gestational age

