

I. INTRODUCTION

1. 1 Background

Breast milk is the best food for babies because it is a perfect nature food, easily digested by babies and contains nutrients that suit the baby's need for growth, immunity and prevent various diseases and for baby's intelligence, safe and secure. Breast milk is also useful for the body's resistance to infectious diseases because colostrum that is part of breast milk contains immunoglobulin. Colostrum is breast milk that comes out within a few days after giving birth to the color of being or yellowish white. Breast milk is one source of lactic acid bacteria, which serves to maintain the balance of gastrointestinal bacteria and boost the immune system. Lactic acid bacteria as probiotics have a chance to live on the digestive tract if it comes from the human body. The amount of breast milk produced by the mother in accordance with the needs of the baby, because breast milk also contains macro and micro nutrients that fit the needs of infants up to the age of six months.

Probiotics are defined as living microorganisms, if given in sufficient quantities, provide additional benefits to the host (WHO, 2002). From this definition it is evident that probiotics require some prerequisites to be met. First, probiotics must remain alive at the time of consumption and should be microorganisms. Currently, the most often called probiotic organisms are bacteria, including in the *Lactobacillus* and *Bifidobacterium* genes. Second, they need to be swallowed a dose high enough to cause an effect. Recommended and efficacious doses are closely related to clinical documentation, which should be based. Third, live microorganisms ingested need to give beneficial effects on the host. It is important to note that the beneficial effects of the given probiotics are very

specific to these strains and can't be considered common to other strains of the same species, or species of bacteria or other yeast.

Consuming functional foods containing probiotics, the body will be helpful in maintaining the balance of gastrointestinal micro flora. Microorganisms that have a great chance to pass through and live on the digestive tract are derived from the human body itself. Breastfeeding babies have 92% lactic acid bacteria, if large starts and drink formula or other foods the amount of bacteria is reduced to 20%. In contrast the number of pathogenic bacteria increased from 4 to 24%, so that children who start large many experiencing digestive problems.

In general, studies of infant's need for exclusive breastfeeding for 6 months because of the probiotic of antibodies for infants have been widely reported, but reporting of bacterial strains from probiotic from lactic acid has not been reported, which will provide breast milk type and breast cancer characteristics as probiotic candidates

1.2 Formulation of The Problem

1. How are the existence of bacteria in breast milk?
2. How are the composition of bacteria in breast milk?
3. How are the characteristic of the potential isolate in probiotic candidate

1.3 Purpose of The Research

1. To know the proportional existence of bacteria in breast milk
2. To determine the composition of bacteria in breast milk
3. To determine the characteristic of the potential isolate in probiotic candidate

1.4 Significances of The Research

The acquisition of isolates of probiotic bacteria contained in breast milk has a beneficial effect on the antibodies of infants who consume them. The results of this study are expected to provide information on the type of probiotic bacteria contained in breast milk, so it can be continued to isolate breast milk probiotic bacteria to formula milk that has the same type of bacteria with milk, and help mothers who can't give exclusive breast feeding on the baby.

