

Bioscience Scientific Paper

Científicos descubren unos microorganismos que nos ayudara a deslactosar la leche

Scientists discover a microorganism that will help us get lactose out of milk

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Resumen

La leche sin lactosa es muy fácil de encontrar ahora en un supermercado, pero, el problema es que el proceso es más caro y necesitan ocupar productos químicos o artificiales, lo que hace el proceso no saludable, afortunadamente chilenos han descubierto un microorganismo que nos puede ayudar con este proceso y lo hace completamente saludable y más económico.

Palabras claves: lactosa; productos artificiales; Científicos; laboratorio; microorganismos; biotecnología.

Abstract

Lactose-free milk is very easy to find now in a supermarket, but, the problem is that the process is very long and they do not need to use a chemical or artificial product, which makes the process unhealthy, fortunately Chileans have discovered a microorganism that can help with this process and make it completely healthy and more economical

Keywords: lactose; artificial products; Scientists; microorganisms' laboratory; biotechnology

- **Introduction**

Did you know that 75% of the world population is lactose intolerant? Something that is alarming people. That's why there is lactose-free milk, but the process of removing the lactose, is with some chemicals, what makes it unnatural. So we have to start thinking new ideas to this problem, is there any other way?

- **Problem:**

Why are there so many people with lactose intolerance? Well, firstly lactose is the main sugar in milk. In our body we have microorganisms that produce an enzyme called lactase, a type of β -galactosidase, it is an enzyme produced in the small intestine and synthesized during the lactating childhood of all mammals. Most people produce this enzyme normally but over time and make them lactose intolerant, but there are young children who have this condition from a very young age. To solve this, they made lactose-free milk in which they dissolve lactose, putting the enzyme in charge of doing it. Although this process is fast, it will not always be the best option since they use chemical products, and this is not the healthiest.

- **Methodology**

To carry out this finding, a group of scientists from the University of Santiago De Chile were looking for microorganisms that can adapt to the constant functions of cold and where they were in large quantities. These conditions are found in the Sea of King George Island, in Antarctica, in the south of the American continent, where the university has a climatological research laboratory. The scientists made a preliminary study and found that the microorganisms were found in marine sponges, which can help them and start making biotechnology with that microorganism, that microbe, helps by feeding by filtering the water, retain a large number of these microorganisms inside.

- 1) Scientists bring microorganisms to the laboratory.
- 2) They examine to see that they do not bring any type of infections.
- 3) They put the microorganisms in a container at a low temperature, specifically (10 degrees)
- 4) The microorganisms produce the enzyme that lactose intolerant people do not produce it well.
- 5) Then the milk is examined to verify that it is good.

In this way the process is much easier and faster, it is more economical and healthier.

- **Solution**

After investigating the impressive adaptation of various microorganisms that inhabit Antarctica, the scientists managed to develop a highly efficient enzyme to extract lactose from milk at low temperatures, with microorganisms from Antarctica according to the results of research led by Dr. Renato Chávez. With all of this information, we can realize that it is not necessary to carry out these processes to extract lactose from milk with chemical or artificial products, rather than with microorganisms that provide us.

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