CALIFORNIA STATE SCIENCE FAIR
2013 PROJECT SUMMARY

Name(s)
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Project Number
J0501

Project Title
The Perfect Milk Substitute?

Abstract

Objectives/Goals
Do milk substitutes have a trace of lactose?

Methods/Materials
Soy milk, almond milk, rice milk, lactose free milk, test tubes, stopwatch, glucose tablets, lactase drops, Diastix Reagent for Urinalysis.

Results
The percentage of glucose found before and after adding lactase is as follows: water 0-0, glucose water 2-2, whole milk 0-.25, 2% milk 0-.25, almond milk 0-0, rice milk 0-.75, soy milk 0-0, lactose free milk 2-2.

Conclusions/Discussion
My hypothesis was incorrect. When I tested soy milk, almond milk, rice milk, and lactose free milk for lactose, I found no lactose in any milk substitute.

Summary Statement
To find a perfect milk substitute there has to be no lactose which you can test for by adding the enzyme lactase and then test for glucose using Diastix glucose test strips.

Help Received
Dad helped order the glucose strips, glucose tablets, and lactose drops.