

## Answer on Question#48407 - Biology, Microbiology

**Task:** I have 2 test tubes labeled "Strep E" and "Strep E Buffer"

The "Strep E" test tube contains "Staphylococcus Epidermidis and Lysozyme"

The "Strep E Buffer" test tube contains "Staphylococcus Epidermidis and a Buffercontrol"

I understand how Lysozyme breaks down peptidoglycan in the "Strep E" test tube

So my question is

Why is the "Strep E Buffer" test tube that contains no Lysozyme useful in this experiment?

How can it be used as a comparison?

### **Answer:**

There is buffer in both test tubes. But in one (Strep E) there is Lysozyme also. You should see how Lysozyme affects the Staphylococcus Epidermidis. But theoretically buffer can make influence on Staphylococcus Epidermidis too. And all changes in test tube "Strep E" can be caused by Lysozyme and/or buffer. We can disprove that by using test tube "Strep E Buffer" that contains only Staphylococcus Epidermidis and a Buffercontrol without Lysozyme. The absence of any changes in test tube "Strep E Buffer" shows us that buffer don't make influence on Staphylococcus Epidermidis. And only Lysozyme is an active substance in test tube (Strep E).