

VII. Appendix

Digestion of fat with pancreatic lipase and bile salts.

1. Add litmus powder to dairy cream until a blue color is produced. Preincubate the litmus cream and a 1% pancreatin solution at 37° C for 5 minutes. Prepare a series of test tubes as follows.

Tube 1
3 ml cream
+
3 ml pancreatin

Tube 2
3 ml cream
+
3 ml water

Tube 3
3 ml cream
+
3 ml pancreatin
+
3 ml bile salts

Tube 4
3 ml cream
+
3 ml water
+
pinch bile salts

2. Incubate all tubes in a 37° C water bath for 1 hour, or until a color change occurs in one tube. Blue litmus will turn pink in an acid environment. Test the pH using pH paper, and not the odor of each tube.

Gastric Digestion of Protein

1. Place thin slices of cooked egg white in four test tubes. It is important to make these slices the same size (about 0.5 cm²) and as thin as possible.
2. Add the following to the tubes and determine the pH of each tube:

Tube 1
3 ml pepsin
(5% soln)
+
3 ml HCL
(0.5%)

Tube 2
3 ml pepsin
(5% soln)
+
3 ml water

Tube 3
3 ml HCL
(0.5%)
+
3 ml water

Tube 4
3 ml pepsin
(5% soln)
+
3 ml NaOH
(0.25%)