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Physiology

Lab report 3

09/07/23

Laboratory 3 - Molecular Activity and Membrane Transport

Purpose -The purpose of lab 3 is how Enzymes are complex proteins are subjected to denaturing breaking the weak hydrogen bonds. And specific chemical reactions without being changed or used up.

Procedures –

1. Add just enough litmus powder to a container of dairy cream to produce a medium blue color. Pour 3 ml of the litmus cream into 4 separate test tubes. Into two additional test tubes pour 3 ml of 2% pancreatin. Preincubate the litmus cream and the pancreatin separately in a 37°C water bath for 5 minutes. Then prepare four test tubes.

Tube #1: 3 ml cream + 3 ml pancreatin

Tube #2: 3 ml cream + 3 ml distilled water

Tube #3: 3 ml cream + 3 ml pancreatin +pinch of bile salts

Tube #4: 3 ml cream + 3 ml distilled water + pinch bile salts

2. Gently shake each tube for 30 seconds to mix in the bile salts. Incubate all four tubes in a 37c water bath for 1 hour, checking every minute for the first 5 minutes. Then every 15

minutes for the rest of the hour. Record the time and number of the tube. Continue checking for the remainder of the hour.

3. Remove the tubes from the water bath. Test the pH of each tube using pH paper and note the odor and color of each tube.

Results - When finished with the experiment. The results I got was the tubes with pancreatin changed to a pink color and the tubes with distilled water was a light blue. Throughout the 15 mins the smell on tubes did increase to a stronger smell.

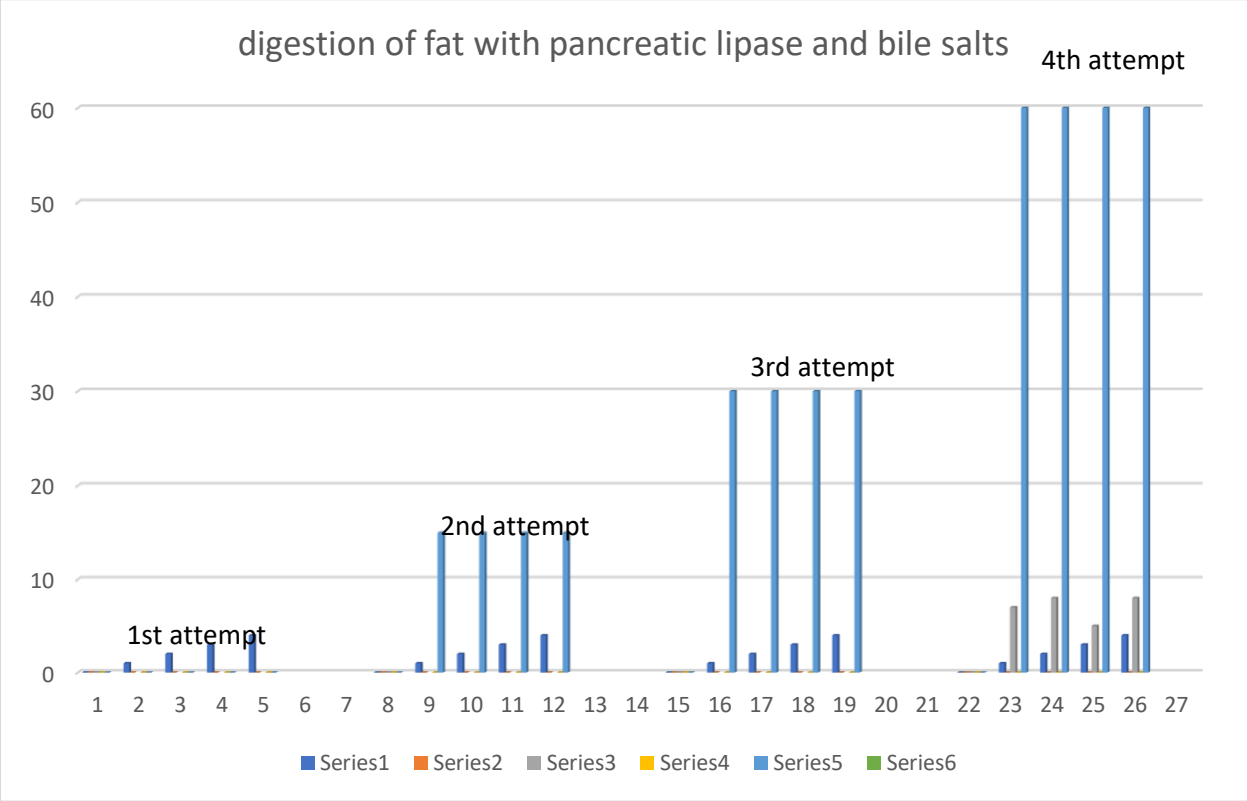
Tube	color	pH	odor	time to change
1	light purple		nothing	5 mins
2	purple		nothing	5 mins
3	light purple		nothing	5 mins
4	light blue		nothing	5 mins

Tube	color	pH	odor	time to change
1	light purple		milk	15 mins
2	light blue		sour milk	15 mins
3	light pink		rotten	15 mins
4	light blue		rotten	15 mins

Tube	color	pH	odor	time of change
1	light purple		milk	30 mins
2	grey/blue		milk	30 mins
3	blush pink		warm milk	30 mins
4	light blue		rotten	30 mins

Tube	color	pH	odor	time of change
1	pink	7	milk	60 mins

2	blue/purple	8	milk	60 mins
3	pink	5	rotten	60 mins
4	light blue	8	rotten	60 mins



Discussion - As the experiment went on it changed within time the odor became stronger especially for the last tubes #3 and #4 which had the fastest change from the other two tubes.

Conclusion - In conclusion the digestion of the fat affects the pH of the solution and how bile affects the rate of digestion is it breaks down into fatty acids. The breakdown will result in a low pH.