Purpose

The Purpose of this lab is to show us how enzymes interact with bile salts and dairy cream after being incubated. This lab in particular shows us how Pancreatic Lipase interacts with lipid droplets with and without a bile salt emulsifying agent.

Procedure

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 as follows:

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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 37 C water bath for 1 hour, checking every minute for the first 5 minutes or until the first tube changes color, 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.

NOTE: Blue litmus will turn pink in an acid environment.

Results tubes 124=

Tube	Color	Ph	Odor	Time to change
1	**Blue top/pink bottom**	**5**	**none**	**10 Minutes**
2	**lavender**	**8**	**none**	**No change noticed**
3	**pink**	**3**	**Light odor**	**20 minutes**
4	**Lavender**	**8**	**Strong offensive odor**	**No change in color**

Discussion

This lab was straightforward, relatively easy to understand and easy to complete. The results were in line with what I would have expected for this lab and i do not feel any further discussion is required.

Conclusion

This lab was straightforward, easy to understand and easy to complete. The lab's purpose was to demonstrate the interaction between bile salts and lipids after exposure to heat and I believe it was demonstrated adequately with the pH changes and differences in odor laid out by the table above.