

Name _____

Section _____

Metabolism in Yeast

Experiment # 12

Pre-Lab Exercise

1. How would you classify this enzyme, lactate dehydrogenase in terms of the enzyme classification scheme described in the text book, *i.e.*, oxidoreductase, transferase, hydrolase, lyase, isomerase, or ligase?

2. How would you classify the enzyme, alcohol dehydrogenase?

3. Methylene blue is a dye that is used in this experiment as an indicator for oxidation and reduction. What color is methylene blue in the oxidized state?

What color is methylene blue in the reduced state?

4. Boiling yeast may result in these organisms no longer being able to metabolize nutrients. Explain what may be destroyed as a result of boiling.

Name _____ Section _____

Carbohydrate Metabolism in Yeast

Experiment #12

Data & Report Sheet

Lactic Acid Dehydrogenase and Alcohol Dehydrogenase Reactions in Yeast

	Observations	
	After 10 min in water bath	After shaking in air
5% Na lactate + boiled yeast		
5% Na lactate + KCN		
5% Na lactate		
Blank, distilled water		
5% Ethanol		

Questions:

1. What accounts for the differences in your observations between the blank tube containing yeast with no substrate and the tube containing 5% sodium lactate or 5% ethanol. Why does sodium lactate or ethanol result in the loss of color in this tube?

