

Pre-lab Quiz Lab Exercise 3 Part I

Note: If you feel that there is more than one answer for any of the questions below, please feel free to

CIRCLE ALL THAT APPLY!

VERSION C

1. In today's lab, what will be used to precipitate proteins using the 'salting out' method?
 - a. Ammonium hydroxide
 - b. Ammonium sulfate
 - c. Potassium sulfate
 - d. Ethanol

2. In today's lab, you will attempt to precipitate protein from:
 - a. Whole blood
 - b. white blood cells
 - c. Plasma
 - d. Lysed Red blood cells

3. If a protein precipitates out of a solution containing a watery solvent, which of the following can be said about the agent that caused the precipitation?
 - a. It must have been more polar than water.
 - b. It reduced the solvation shell around the protein
 - c. It increased the solubility of the protein.
 - d. It may have been less polar than water.

- 4) Upon centrifugation, proteins that did not precipitate in a solution can be found:
 - a. In a pellet
 - b. Still dissolved in the watery solvent
 - c. In the supernatant
 - d. None of the above.

KEY

VERSION C

1. B (0.5 PTS)
2. C (0.5 PTS)
3. B, D (0.25 PTS EACH)
4. B,C (0.25 PTS EACH)

Pre-lab Quiz Lab Exercise 5

VERSION B

1. The best definition of an agonist is a substance that:
 - a. Inhibits a given cellular process
 - b. Activates a given cellular process
 - c. Has the opposite effect of a receptor's natural ligand
 - d. Mimics the effects of a receptor's natural ligand

2. The best definition of an antagonist is a substance that:
 - a. Has the opposite effect of a receptor's natural ligand
 - b. Inhibits a given cellular process
 - c. Activates a given cellular process
 - d. Mimics the effects of a receptor's natural ligand

3. The average heart rate of the organisms you will be working with today is about:
 - a. 300 beats per minute
 - b. 75 beats per minute
 - c. 1000 beats per minute
 - d. 120 beats per minute

4. The sympathetic nervous system has the general effect of _____ heart rate.
 - a. Increasing
 - b. decreasing

Pre-lab Quiz Lab Exercise 3 Part II

Note: If you feel that there is more than one answer for any of the questions below, please feel free to circle all that apply!

VERSION C

1. Which of the following most accurately describes the critical role of SDS in the technique, SDS-PAGE?
 - a. it unfolds the 3 dimensional structure of proteins
 - b. it neutralizes the charge on proteins
 - c. it gives proteins an overall positive charge
 - d. it stabilizes the 3 dimensional structure of proteins
 - e. it gives proteins an overall negative charge

2. Which of the following dyes will be used to track the movement of proteins *during* electrophoresis in today's lab?
 - a. Coomassie blue
 - b. P-nitroaniline
 - c. Trypan blue
 - d. Bromophenol blue
 - e. Methylene blue

3. The polyacrylamide component of a gel used for SDS-PAGE is used in order to:
 - a. Separate proteins on the basis of charge and shape
 - b. Separate proteins on the basis of shape
 - c. Separate proteins on the basis of size/length
 - d. Minimize the differences in protein size/length
 - e. None of the above

4. Which of the following dyes will be used to visualize individual proteins *after* electrophoresis in today's lab?
 - a. Coomassie blue