SOP-P019

Preparation of 2% Paraformaldehyde (PF)

Objective: To prepare 2% paraformaldehyde solution for use in fixing stained cells

Procedure:

1. Measure out 175 ml PBS (refer to SOP#-P020 for Preparation of Phosphate Buffered Saline) in a graduated cylinder.

2. Pour the PBS into a clean Erlenmeyer flask containing a stir bar.

3. While stirring gently on a magnetic stirplate, add 4.0 g paraformaldehyde.

4. Seal the top of the flask with parafilm and cover the flask with aluminum foil to protect the contents from light.

5. Leave the flask on the stirplate to stir overnight. Solution should be clear with no visible solids.

6. Continue to stir and determine the pH of the solution using a pH meter (refer to SOP#-P048 for Determination of pH Using a VWR model 9100 pH meter, located in Bindley 122).

7. Adjust the pH of the solution to 7.4. Using a 5.25" Pasteur pipet fitted with a rubber pipet bulb, add dropwise 1 N hydrochloric acid (HCl) if the pH is higher than 7.4, or 1 N sodium hydroxide (NaOH) if the pH is lower than 7.4, until the correct pH is obtained.

8. Remove the stir bar and pour the paraformaldehyde solution into a graduated cylinder.

9. Add PBS to the solution until the volume reaches 200 ml.

10. Place the solution in a container such as a glass bottle with screw cap.

11. Cover the bottle with aluminum foil to protect the contents from light.

12. Label the bottle with content information, date, and your initials.

13. Store refrigerated at 0-5°C. Expiration date is one month from date of preparation.

Created by: Gretchen Lawler

Verified by:_____ Date:_____ _____

Print Name Sign Name