

Carolina™ Solution Sheets

Schiff's Reagent

Learn how to make Schiff's reagent and use it to test for aldehyde groups.

Materials

Basic Fuchsin (item #864170)
Hydrochloric Acid (item #847841)
Potassium Metabisulfite
Distilled Water (item #858621)
Stir Bar
Magnetic Stir Plate (item #701023)
Erlenmeyer Flask, 100-mL (item #731031)
Graduated Cylinder (item #721744)
Label
Boiling Chips (item #848280)

Don't want to make it yourself?
Find Schiff's reagent at Carolina.com

Item Number
887265

Procedure

1. Boil 900 mL of distilled water and dissolve 5 g basic fuchsin.
2. Cool to 50° C and slowly add 100 mL of 1N HCl.
3. Cool this solution to approximately 25° C and dissolve 10 g of $K_2S_2O_5$.
4. Shake for 3 minutes and incubate in the dark at room temperature for 24 hours.
5. Add 5 g of fine activated charcoal and shake for 3 minutes.
6. Filter solution (should be clear).
7. Store at 4° C in a foil-covered bottle.

Label Information

Schiff's Reagent

Eye and skin irritant; harmful if swallowed

Date Prepared: _____

Initials of Preparer: _____

Health Risk: 1

Flammability: 0

Reactivity: 0

Applications

Schiff's reagent is used in the Schiff's reaction to test for the presence of aldehyde functional groups. A magenta color indicates a positive result.

Reference

Weiss, L. 1983. *Histology: cell and tissue biology*, 5th ed. New York: Elsevier Biomedical. ISBN 0-333-35406-0.