

# Oxidase Test

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Refer to Exercise 5-5 on page 247 of your lab book for an explanation of the oxidase test, its purpose, and the chemical pathways that are involved. You will only use one of the following procedures; your instructor will tell you which one to use.

## Procedure 1: Reagent Droppers Method A

SHARE OPEN REAGENT DROPPERS. OPEN A NEW ONE ONLY IF THERE ARE NONE OPEN YET!

- To open a new reagent dispenser: Hold the reagent dropper upright and point the tip away from yourself. Grasp the middle of the dropper with your thumb and forefinger and squeeze gently to crush the glass ampule inside the dropper. Tap the bottom on the tabletop a few times. Invert the ampule and squeeze gently for drop-by-drop dispensing.
- Touch a sterile swab *very* lightly to organismal growth on a slant or plate. Too much organism can cause a false negative.
- Place only one drop of reagent onto the organismal sample on the swab. Too much reagent can cause a false negative.
- Positive reactions turn the bacteria violet to purple within 30 seconds. Delayed reactions should be ignored.
- Dispose of the swab in the Pipet Keeper.

## Procedure 2: Reagent Droppers Method B

SHARE OPEN REAGENT DROPPERS. OPEN A NEW ONE ONLY IF THERE ARE NONE OPEN YET!

- To open a new reagent dispenser: Hold the reagent dropper upright and point the tip away from yourself. Grasp the middle of the dropper with your thumb and forefinger and squeeze gently to crush the glass ampule inside the dropper. Tap the bottom on the tabletop a few times. Invert the ampule and squeeze gently for drop-by-drop dispensing.
- Place a couple drops of oxidase reagent on a piece of filter paper.
- Using a swab, wooden applicator, plastic loop, or plastic needle (availability and instructor preference will vary), streak a sample of the organism to be tested onto the reagent-soaked area of the filter paper.
- Positive reactions turn the bacteria violet to purple within 30 seconds. Delayed reactions should be ignored.
- Dispose of the filter paper in the biohazard bag, and dispose of the tool used to perform the streak in the Pipet Keeper.

## Procedure 3: Test Strips Method A

- Obtain one test strip and one paper towel. With the paper towel already folded along the pre-made folds, fold it in half. It should end up as a rectangle with the approximate size of 4"x3".
- Gently place a loopful of water on the test strip; be sure to not over-wet the strip or soak the paper towel.
- Using a wooden applicator, plastic loop, or plastic needle (availability and instructor preference will vary), streak a sample of the organism to be tested onto the reagent-soaked area of the filter paper.
- Positive reactions turn the strip violet to purple within 30 seconds. Delayed reactions should be ignored.
- Dispose of the paper towel and test strip in the biohazard bag, and dispose of the tool used to perform the streak in the Pipet Keeper.

## Procedure 4: Test Strips Method B

- Obtain one test strip for each organism to be tested.
- Whenever you are completely finished using the slant for other purposes, drop the test strip onto the surface of the slant.
- Using a wooden applicator, rub the strip across the surface of the slant.
- Positive reactions turn the strip violet to purple within 30 seconds. Delayed reactions should be ignored.
- Dispose of the slant in the white test tube basket, and dispose of the wooden applicator in the Pipet Keeper.