

To use chromogenic agar to show growth inhibition of bacteria

Aim:

To use chromogenic agar to show growth inhibition of bacteria.

Chromogenic agar contains two enzymes, which are sensitive to Ecoli and Coliform Bacteria. The agar is pink with coliforms and purple with Ecoli. These are indicator organisms which if present could suggest that more pathogenic organisms can survive in this medium example a river water sample.

Method:

1. Prepare the medium by dissolving 6 grams of chromogenic agar in 100 ml of water.
2. Sterilise in autoclave for 15 minutes at 120 celsius.
3. Pour the plates aseptically.
4. Allow the agar to cool.
5. Before the agar solidifies add 2 ml of river water and rotate the plates slowly.
6. Place in incubator upside down for 48 hours at 21 degrees.
7. Remove wells from the plates with a hot cork borer.
8. Fill the well with different samples of soap solution, example same mass of soap with disinfectant property and a soap with a high perfume property. A student can also soak same area of a filter disc in different filter papers.
9. Replace in incubator for 24 hours at 21 Celsius.

Result:

Growth inhibition areas around the well appear. This indicates that the soap is removing the bacteria.

Conclusion:

The importance of washing our hands before a meal with soap is shown. Different soaps have different disinfectant properties.