

Unknown Microbiology Lab Report

Materials and Methods A mixed culture of two unknown bacteria was provided by the instructor. The methods used for identification of the two unknown bacteria were in the laboratory manual by Dry. Floyd and Dry. Kennedy (1) unless otherwise noted. The first step that was used was a three streak method, described in Lab 4, on a Blood Heart Infused/Triplicate Soy Agar plate to isolate the two unknown bacteria. Once the two bacteria were incubated, grown, and isolated they were each individually streaked on a Triplicate Soy Agar plate to isolate individual colonies to be studied, tested and identified.

After incubation of the individual TTS plates, the morphologies were viewed and noted and a Gram stain was completed on each individual bacterium, which will be referred to as Bacteria #1 and Bacteria #2. After the Gram reaction was determined on Bacteria #1 and Bacteria #2, different biochemical tests were done according to the dichotomous keys provided in the lab manual. All the tests were performed by the methods outlined in the lab manual by Dry. Floyd and Dry. Kennedy (1). Table 1 and Table 2 list the tests performed, purpose, and results.

Also Flow Chart 1 and Flow Chart 2 will show the results. **Results** The Unknown Bacteria 36/ Bacteria #1 on a TTS plate was examined by the naked eye and under a dissecting microscope. Bacteria # 1 was approximately 2 - mm in diameter. They were circular in form with an entire margin and convex elevation. The colonies were smooth, translucent, and had a white brownish color. The Gram stain resulted in Gram positive Cisco. After the Gram stain was completed, the bacteria were streaked on a Imitation-Salt Agar plate and a Catalane test was performed. After these test were completed a Phenol Red

Dextrose Fermentation tube was inoculated, and a SIMI Tube inoculated. The Unknown Bacteria 36/Bacteria # 2 on a TTS plate was examined by the naked eye and under a dissecting microscope. Bacteria # 2 was approximately 3 - 4 mm in diameter. They were circular in form with an entire margin and a flat elevation. The colonies were rough (granular), translucent, and white brownish color with black granules. The Gram stain resulted in a Gram negative rod. After the Gram stain was completed, the bacteria were streaked on an Eosin -Methyl Blue Agar plate and an Underwrote II was inoculated.

See Table 1 and Flow Chart 1 for results of Bacteria # 1 and Table 2 and Flow Chart 2 for results of Bacteria # 2. Table 1: Biochemical Test Results (Bacteria # TEST | PURPOSE | REAGENTS OBSERVATIONS RESULTS | Gram Stain | To determine the Gram reaction of Bacteria #1 | Crystal violet, Iodine, Alcohol, Seafaring | Purple Cisco | Gram positive Cisco | MASS Agar plate | To determine Gram positive Staphylococcus species | None | Yellow halo around streak | Staphylococcus erasures | Catalane Test | To verify bacte

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