

9:10

81



Note Oct 31, 2024

10/31/24

unknowns #2



Grid plate



Attempt 1

Dec 10, 2024 at 9:21 PM

Daily Log

In addition to the daily log, we kept a photo journal of each lab session to look back on as needed.

10/29/2024

Group obtained tube with unknown mix of bacteria.

Heated 4 tubes of NA and poured them into plates when cooled.

Each group member streaked a NA plate with the unknown mix.

Each group member streaked a selective/differential media plate: MAC, EMB, MSA, and blood agar with the unknown mix.

10/31/2024

Results of NA plates

NA plates show pink, white and greenish growth. We believe the pink growth indicates the presence of *Serratia marcescens* based on bacterial growth observed in UV lab by group 8.

We streaked 4 new NA plates each to keep our bacteria going.

We streaked a NA grid plate with various colonies, growth colors, etc. from all plates.

We also inoculated a new NA broth with our original unknown sample.

Results of selective and differential media

Blood agar: no isolated colonies. There is evidence of β -hemolysis by the yellowish color of the agar/growth and area of clearance around growth in all areas.

We streaked a new blood agar plate today to try to get better isolated colonies.

EMB: growth, no metallic green, and no isolated colonies.

We streaked a new EMB to try to get better isolated colonies.

MAC: pink, green and orange growth.

MSA: only yellow growth.

Today we did catalase, negative stain and Gram stain on MSA growth. We believe we identified *Bacillus megaterium* and that our other bacteria are *Staphylococcus aureus* because of the yellow growth only on our MSA plates.

For *B. megaterium* testing

Yellow growth MSA plate

Catalase was positive

Negative stain was positive for rods with capsules (possibly cocci too - look at pictures again)

Gram stain showed G+ rods

For *S. aureus* testing

Yellow growth MSA plate

Gram stain shows G+ cocci

Other observations:

NA white isolated colonies gram stain show rods.

NA Gram staining showed G+ cocci, G- and G+ rods.

Blood agar showed this as well.

EMB showed G- rods and possibly G- diplococci.

Notes:

4 NA plates + 1 NA grid