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((Microbiology))

stage 2

Ninth lecture

Diagnosis of Gram Negative Bacteria

By

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Gram-negative bacteria have an outer membrane. However, they have a thinner peptidoglycan cell wall. This means they do not hold the blue dye used in Gram testing and do not appear blue. Instead, they appear red or pink in color.

Characters	Gram-negative bacteria
Color after gram testing	Pink or red
Cell wall thickness	Thin
Toxins	endotoxins
Types	<ul style="list-style-type: none">• Vibrio cholerae• Escherichia coli• Bartonella henselae• Campylobacter• Legionella• Salmonella• Salmonella typhi

Tests used to identify Gram Negative Bacteria

- Oxidase Test.
- Sugar (eg glucose) broth with Durham tubes.
- Methyl Red / Voges-Proskauer (MR/VP)
- Kligler's Iron Agar (KIA)
- Nitrate Broth.
- Motility Agar.
- MacConkey agar.
- Simmon's Citrate Agar.

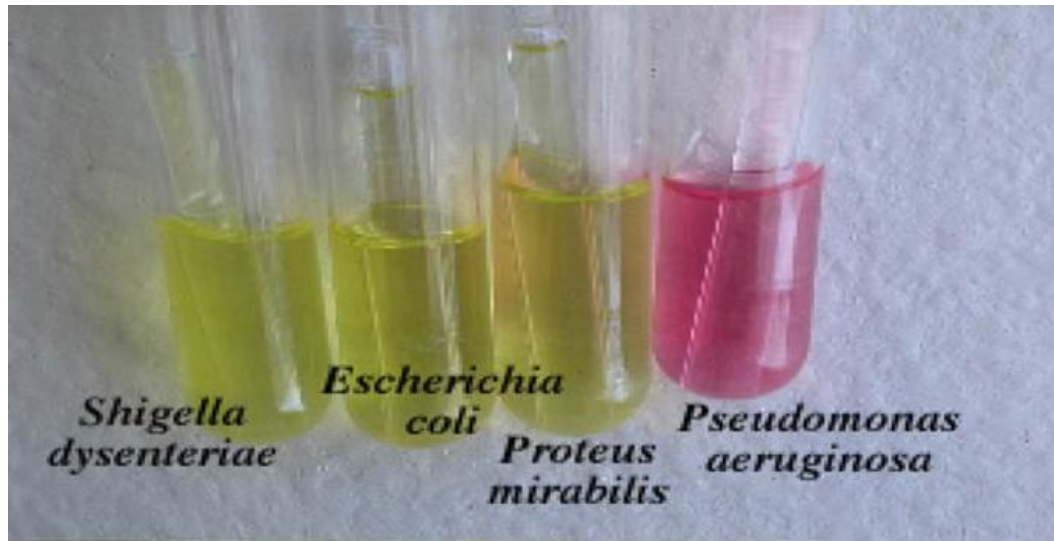
Oxidase Test





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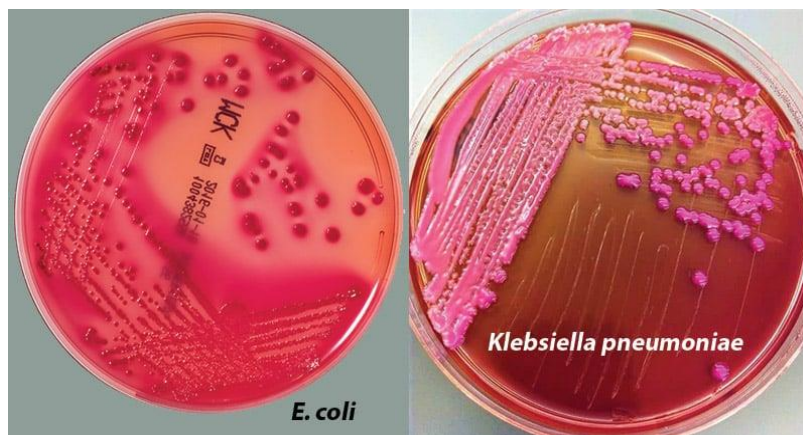
Sugar (eg glucose) broth with Durham tubes



Methyl Red / Voges-Proskauer (MR/VP)



MacConkey agar



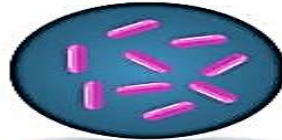


Gram negative bacteria

Neisseria gonorrhoeae



Escherichia coli



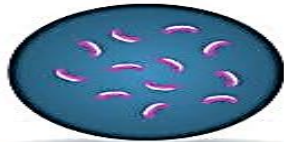
Helicobacter pylori



Streptobacillus moniliformis



Vibrio cholerae



Treponema palladium

