

Microbiology lab: methyl red and voges-proskauer test assignment



**ASSIGN
BUSTER**

Red test shows which bacteria are creating stable acids through mixed acid fermentation of glucose. This helps to identify enteric bacteria by examining how they metabolize glucose. Every enteric bacteria first produces pyruvic acid from metabolism of glucose. A methyl red positive enteric bacteria, uses the mixed acid pathway when breaking down pyruvic acid to different acids, like lactic, acetic, and formic acids. The Voges-Proteases test determines if there is action found in a bacterial ultra.

Using alpha-naphtha and potassium hydroxide detects if there is action in the culture. The test is determined by the digestion of glucose to stratospherically. The test will react with alpha-naphtha and potassium hydroxide if glucose is being broken down and turn a red color. If a test is positive it will show a maroon colored band on the top portion of the broth. Lab Results E. Coli is MR.+ because it does ferment glucose and the has a high acidity produced during the fermentation.

E Coli is UP- because it does not make acetic methyl carbolic, a neutral product. E. Coli produces more acidic products S. Epidermis is MR.+ and is UP+ because it first changes to acidic products then is able to convert those acidic products into some neutral basic products so it gives both positive results. Organisms and Metabolism Organisms possess different biochemical pathways to metabolize glucose due to the range of different environments glucose metabolism is needed to occur in.