

Identification of Bacteria. IV. Bile Aesculin Agar for the Determination of Enterococci

Introduction

Another of the various diagnostic tests one may perform to identify bacteria is the determination of bacterial growth on Bile Aesculin agar. This medium contains bile and aesculin in an agar base. The presence of bile insures the non-growth of gram positive bacteria and other non-enteric bacteria. Bile acts as a bacterial growth suppressor for these latter two types of bacteria. Bacteria which can grow in the presence of bile are the enteric bacteria (they are used to growing in its presence in the bowel). Aesculin is a glycoside. Some bacteria, specifically Group D streptococci (the enterococci) hydrolyze the aesculin. The hydrolytic product is dark brown and discolors the medium.

The purpose of this experiment is to learn how to perform and interpret the growth and media-discoloration of various bacteria on solid Bile Aesculin agar.

Materials and Methods

Materials

Bile-Aesculin agar	Incubator	Bunsen burner
Cotton-tipped applicator sticks	Paper towels	Disinfectant

Method

Aseptically streak your bile-aesculin agar slant with the cotton swab after you have swabbed your throat. Incubate for 48 hours. Finish this experiment at your next lab period.

Is your agar slant discolored? What does this say about the ubiquitous nature of the Group D Streptococci? Draw and label your observations for your agar slant below:



REFERENCES

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