Columbia CNA Agar with 5% Sheep Blood

I INTRODUCTION

Columbia CNA Agar with 5% Sheep Blood is a selective and differential medium for the isolation and differentiation of gram-positive microorganisms from clinical and nonclinical specimens.

PRODUCT INFORMATION

II INTENDED USE

Columbia CNA Agar with 5% Sheep Blood is a selective and differential medium used for the isolation and differentiation of gram-positive microorganisms from clinical and nonclinical materials.

III SUMMARY AND EXPLANATION

Ellner et al., in 1966, reported the development of a blood agar formulation, which has been designated as Columbia Agar. The Columbia Agar base, which achieves rapid and luxuriant growth and sharply defined hemolytic reactions, is utilized as the bas for media containing blood and for selective formulations in which various combinations of antimicrobial agents are used as additives.

Ellner and his colleagues found that a medium consisting of 10 mg of colistin and 15 mg of nalidixic acid per liter in a Columbia agar base enriched with 5% sheep blood would support the growth of staphylococci, hemolytic streptococci and enterococci while inhibiting the growth of *Proteus, Klebsiella* and *Pseudomonas* species.

IV PROCEDURE

Materials Required But Not Provided
Ancillary culture media, reagents and laboratory equipment as required.

Instructions
The agar surface should be smooth and moist, but without excessive moisture.

Streak the specimen as soon as possible after it is received in the laboratory. The streak plate is used primarily to isolate pure cultures from specimens containing mixed flora. Alternatively, if material is being cultured directly from a swab, roll the swab over a small area of the surface at the edge; and streak from this inoculated area.

Incubate plates for 24 to 48 h at 35 ± 2°C in an aerobic atmosphere supplemented with carbon dioxide.

Visual Results on This Medium Should Be As Follows

After incubation most plates will show an area of confluent growth. Because the streaking procedure is, in effect, a "dilution" technique, diminishing numbers of microorganisms are deposited on the streaked areas. Consequently, one or more of these areas should exhibit isolated colonies of the organisms contained in the specimen. Better isolation is obtained due to the inhibitory nature of the media.

Typical colonial morphology on Columbia CNA Agar with 5% Sheep Blood is as follows:

Streptococci (non-group D) . . .	Small, white to grayish. Beta or alpha Hemolysis.
Enterococci (Group D)	Small, but larger than group A streptococci, blue-gray. Beta or alpha hemolysis.
Staphylococci	Large, white to gray or cream to yellow, with or without hemolysis.
Micrococci	Large, white to gray or yellow to orange, with or without hemolysis.
Corynebacteria	Small to large, white to gray or yellow, with or without hemolysis.
Candida	Small, white
Listeria monocytogenes	Small to large, blue-gray, with beta hemolysis
Gram-negative bacteria	No growth to trace growth