PRODUCT INFORMATION AND QUALITY CONTROL SHEET
MacCONKEY BROTH

I. INTENDED USE
MacConkey Broth is used for the detection of coliform bacteria in milk and water.

II. SUMMARY AND EXPLANATION
MacConkey Broth is a modification of the original bile salt broth recommended by MacConkey, containing 0.5% sodium taurocholate and litmus as an indicator. Childs and Allen demonstrated the inhibitory effect of neutral red and substituted the less inhibitory Brom cresol purple.

III. PRINCIPLES OF THE PROCEDURE
Enzymatic Digest of Gelatin provides the nitrogen and vitamin sources in MacConkey Broth. Lactose is the carbohydrate for Gram-negative lactose-fermenting bacilli. Bile Salts inhibit the growth of gram-positive organisms. Brom cresol Purple is the indicator.

IV. TYPICAL FORMULA AND APPEARANCE
Enzymatic Digest of Gelatin................................. 20 g
Lactose ................................................................. 10 g
Bile Salts ............................................................... 5 g
Brom cresol Purple .................................................. 0.01 g
Final pH: 7.3 ± 0.2 at 25 C
Formula may be adjusted and/or supplemented as required to meet performance specifications.

Prepared medium is dark purple to red-purple, and clear to slight hazy.

V. PRECAUTIONS
1. For Laboratory Use.
2. IRRITANT. Irritating to eyes, respiratory system, and skin.

VI. STORAGE/SHELF LIFE
Media should be stored at 2-8 C (36-46 F). DO NOT FREEZE OR EXPOSE TO HIGH TEMPERATURES. Allow unopened tubes to warm to room temperature prior to inoculation. Prior to and during inoculation procedures, tubes should be handled in a manner that minimizes product exposure to the environment. Product that has exceeded the assigned expiration date noted on the label should not be used.

Do not use tubes that exhibit evidence of discoloration, microbial contamination or any other signs of deterioration.

VII. SPECIMEN COLLECTION
The quality of culture results depends primarily on the adequacy and condition of the specimen submitted for examination. Refer to appropriate references for specimen collection and preparations.

VIII. MATERIALS PROVIDED
MacConkey Broth tubes 10 per box.

IX. MATERIALS REQUIRED BUT NOT PROVIDED
Incubator maintaining 33-37 C.
Ancillary culture media, reagents and laboratory equipment as required.

X. PROCEDURE
Refer to the appropriate references using MacConkey Broth.

XI. EXPECTED RESULTS
Lactose-fermenting organisms grow well in MacConkey Broth and produce acid, causing the medium to turn yellow.

Non-fermenting organisms produce good growth, but will not produce acid.

NCCLS Control Organisms (ATCC Strains)
Enterobacter aerogenes (ATCC 13048)
Escherichia coli (ATCC 25922)
Salmonella typhimurium (ATCC 14028)
Staphylococcus aureus (ATCC 25923)

Growth, yellow broth
Growth, yellow broth
Growth no color change
Inhibited

XII. LIMITATIONS
Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.

XIII. REFERENCES

USER QUALITY ASSURANCE/ QUALITY CONTROL PROCEDURES AND INFORMATION
HealthLink recommends that the following quality assurance and quality control procedures be performed on each batch of product.

I. QUALITY ASSURANCE
The following quality assurance procedures must be performed to assure the product will perform according to its intended use within the assigned expiry date:
1. Daily, document that product storage refrigerator maintains temperature within the recommended range: 2-6 C.
2. Daily, document that laboratory incubator maintains temperature within the recommended range: 33-37 C.

II. QUALITY CONTROL
The following incoming inspection procedures must be performed for each batch (batch = same lot, same shipment) of culture media received in the laboratory:
Inspect tubes according to instructions contained in Section VI "STORAGE/SHELF LIFE"

Note: Notify Technical Service immediately if media does not meet the inspection criteria.

TECHNICAL SERVICE
HealthLink provides a toll free technical service line (1-800-638-2625) to assist with product usage. To have technical questions answered; please call between the hours of 9:00 am to 5:00 pm EST.

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