MUELLER HINTON BROTH NO.2 TM 1577

INTENDED USE

For susceptibility testing of rapidly growing bacteria using antibiotic discs by Kirby Bauer technique

COMPOSITION

Ingredients	Gms/Ltr.
Casein acid hydrolysate	17.500
Beef extract	3.000
Starch	1.500

PRODUCT SUMMARY AND EXPLANATION

Mueller Hinton Broth No. 2 is used in the susceptibility testing of rapidly growing aerobic and facultatively anaerobic bacteria from clinical specimens. The medium is designed to give a low thymine and thymidine content and also the calcium and magnesium ion concentration is adjusted as recommended by CLSI. The medium is not recommended for fastidious organisms. Thymine and thymidine inhibit sulfonamide and trimethoprim activity and calcium and magnesium interferes with the activity of aminoglycoside antibiotics.

PRINCIPLE

Beef extract and casein acid hydrolysate provide nitrogenous compounds, carbon, sulphur and other essential nutrients. Starch acts as a protective colloid against toxic substances present in the medium. Starch hydrolysis yields dextrose, which serves as a source of energy.

INSTRUCTIONS FOR USE

1. Dissolve 22 grams in 1000 ml distilled water.
2. Gently heat to boiling to dissolve the medium completely.
3. Dispense and sterilize by autoclaving at 15 psi (121°C) for 15 minutes.
4. DO NOT OVERHEAT.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder: Cream to yellow homogeneous free flowing powder
Appearance of prepared medium: Light amber coloured clear solution
pH (at 25°C): 7.3 ± 0.2

INTERPRETATION:

Culture characteristics observed after incubation period of 18 - 24 hours at 35 ± 2°C.

Microorganisms	ATCC	Inoculum (CFU)	Growth
Escherichia coli	25922	50-100	Luxuriant
Staphylococcus aureus	25923	50-100	Luxuriant
Pseudomonas aeruginosa	27853	50-100	Luxuriant

STORAGE & STABILITY

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct Sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

REFERENCES

1. National Committee for Clinical Laboratory Standards. 2000. Approved Standard: M7-A5. Methods for dilution antimicrobial susceptibility tests for bacteria that grow aerobically, 5th ed. NCCLS, Wayne, Pa.
2. Koch A. E. and Burchall J. J., 1971, Appl. Microbiol., 22: 812
3. Ferone R. Bushby R. M., Burchall J. J., Moore W. D., Smith D., 1975, Antimicrob. Agents chemotherap., 7 : 91
4. Pollock H. M., Minshew B. H., Kenney M. A., Schoenknecht F. D., 1978, Antimicrob. Agents Chemotherap.; 14:360
5. DAmato R. F., and Thornsberry C., 1979, Curr. Microbiol., 2 : 135

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.